UNIVERSITY OF AGRONOMICAL SCIENCES AND VETERINARY MEDICINE-BUCHAREST

FACULTY OF VETERINARY MEDICINE

SYMPOSIUM

„CONTRIBUTION OF THE SCIENTIFIC RESEARCH TO VETERINARY MEDICINE PROGRESS"

BOOK OF ABSTRACTS

November 22-23, 2012

University of Agronomical Sciences and Veterinary Medicine of Bucharest
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The volume includes Abstracts of the **„CONTRIBUTIONS OF THE SCIENTIFIC RESEARCH TO THE PROGRESS OF VETERINARY MEDICINE" SYMPOSIUM, 22nd-23rd November 2012, Bucharest, Romania.**

SYMPOSIUM PROGRAMME

22 November 2012

8.30– 9.30 Registration
9.45 -11.30 Opening Ceremony
11.30 – 11.45 Cofee break
11.45 – 12.40 *Doctor Honoris Causa* Award Ceremony
12.30 – 12.45 Cofee break
12.45 – 14.00 Plenary session
14.00 – 15.00 Lunch break
15.15- 19.00 Oral Sessions
19.30 Gala Dinner – *Salonul Albastru, Campus Agronomie*

23 november 2012

9.00 – 10.30 Poster session
10.30 – 11.00 Cofee break
11.00 – 13.00 Workshop „New TeachingTechnologies – e-learning"
13.00 – 14.00 Closing Ceremony

PLENARY SESSION

22 November 2012
12.45 – 14.00
„A.E. Popoviciu" Aula, Preclinical Sciences Building

Chairman: Prof. univ. Dr. Gabriel Predoi

1 Prof. Dr. **Horst Erich König**, Institute of Anatomy, Histology and Embriology, University of Veterinary Medicine Vienna, Austria
Clinical Anatomy of Guttural Pouch in Horses

2 Prof. Dr. **Yoshiharu Hashimoto**, University Hokkaido, Sapporo, Japan
Improvement of Teaching Veterinary Anatomy and Establishing New Veterinary School System in Japan

3 Prof. Dr. **Fernando Gonzalez Schnake**, Faculty of Veterinary Sciences, Universidad de Conception, Chile
Southamerican Meat Products

4 Acad. **A.T. Bogdan**, Prof. Dr. **Gabriel Predoi**, Prof. Dr. **Ioan Groza**, Prof. Dr. **Alexandru Şonea**
Noua abordare inovativă a noului concept de medicină comparată şi integrată în contextul eco-bioeconomiei

WORKSHOP „NEW TEACHING TECHNOLOGIES – E-LEARNING”

23 November 2012
11.00 – 13.00
„A.E. Popoviciu” Aula, Preclinical Sciences Building

1 Prof. Dr. **Ion Roceanu**, “Carol I” National Defence University
Advanced Distributed Learning in Romania – from Concept to Practice

2 **Stuart CARTER, Gheorghe SOLCAN,** Faculty of Veterinary Medicine Iași
How to get published in high impact journals

3 **Roxana Custură,** Softwin
“E-Learning în Stagii de Pregătire Practică la Facultatea de Medicină Veterinară – de la concept la implementare.”

4 **Sorin Ioniţescu**, **Bogdan Lupu, Robert Tobescu, Ionuț Maior**
University Politehnica of Bucharest
Best Practices for Developing Interactive e-learning Content

SCIENTIFIC PROGRAMME

FUNDAMENTAL SCIENCES SESSION

ORAL PRESENTATION
Data: 22.11.2012
Ora: 15^{00} - 19^{00}

"Radu Vlădescu" Amphitheater – building A, Ground Floor
Chairman: Prof. Dr. Horst Erich König
Moderators: Prof. Univ. Dr. Aurel Damian
Prof. Univ. Dr. Nicolae Cornilă

O1 **MOLECULAR PROFILING OF SCRAPIE CASES IN ROMANIA IN 2011**
FLORICA BĂRBUCEANU, CRISTINA DIACONU, DANIELA STAMATE, DANIELA DENISAN, STEFANIA RAITA, CRINA HOTOIU, M. TURCITU, G. PREDOI

O2 **MONITORING OF HEAMATOLOGICAL INDICES IN A SAMPLE GROUP OF CATS SUBJECTED TO SERIAL BLOOD COLLECTIONS FOR BIOEQUIVALENCE TESTING**
OGNEAN LAURENŢ, CERNEA CRISTINA, ARION ALEXANDRA, BENEDEK B., IMRE M. , MOLDOVAN MARIA MEDA, TRÎNCĂ SEBASTIAN, BARABÁSI ILDIKÓ

O3 **ESTABLISHING SPECIFIC GROWTH RATE OF TWO LACTOBACILLUS SALIVARIUS STRAINS ISOLATED FROM DENTAL ROOT CANAL AND SOME LACTOBACILLUS PROBIOTIC STRAINS BY INTESTINAL ORIGIN AT PH VALUES 4.5 AND 7.0**
DOBREA (POPESCU) ANCA ALEXANDRA , CONSTANTIN SAVU, MIMI DOBREA, IULIANA GÂJÂILĂ

O4 **MODULATION OF STEM CELLS ADHESION BY PLANT LECTINS**
IORDACHE F., H. MANIU, A. POP

O5 **COMPARATIVE EFFICIENCY OF TIAMULIN AND DIMETRIDAZOLE IN CONTROLLING SWINE DYSENTERY**
GÂJÂILĂ IULIANA , GABRIEL GÂJÂILĂ, MIMI DOBREA

O6 **PSYHIC STRESS AND ANIMAL PROTECTION IN DAIRY PRODUCTION**
PARASCHIVESCU M, PARASCHIVESCU M.TH.

O7 **STUDIES ON HISTOLOGICAL STRUCTURES OF THE ABDOMEN ON ADULT WORKER BEES (APIS MELLIFERA CARPATHICA)**
PETRUŢ T., D. CONDUR, N. VELICU, V. CĂLIN

O8 **ASCORBIC ACID CAPACITY OF QUENCHING DPPH·- SPECTROPHOTOMETRICAL APPROACH; A PREMISE FOR THE FUTURE USE OF VITAMIN C AS A REFERENCE ANTIOXIDANT IN THE EVALUATION OF THE TOTAL ANTIOXIDANT CAPACITY**
PISOSCHI AURELIA MAGDALENA

O9 **INFLAMMATORY AND NON-INFLAMMATORY INDUCED ARTHRITIS IN MICE**
RASID O, BANICA LEONTINA, MILITARU MANUELLA, STAVARU CRINA

O10 **VARIATION OF SOME BIOCHEMICAL INDICES IN CHICKS FED WITH ORGANIC SELENIUM SUPPLEMENTED FODDER**
RĂDUŢĂ A., D. CURCĂ, CRISTINA A. CONSTANTINESCU

O11 **VARIATION OF SOME BIOCHEMICAL INDICES IN CHICKS FED WITH L-CARNITINE SUPPLEMENTED FODDER**
RĂDUŢĂ A., D. CURCĂ, CRISTINA A. CONSTANTINESCU

O12 **THE QUALITY OF EGG SHELLS FROM LAYING HENS FED WITH DIFFERENT LEVELS OF CALCIUM, PHOSPHORUS AND PHYTASES**
ROŞU M. , SĂRĂNDAN H, VIOLETA TURCUS, SARANDAN R,

O13 **NUTRITIONAL AND METABOLIC PARAMETERS IN LAYING HENS FED WITH DIFFERENT LEVELS OF CALCIUM, PHOSPHORUS AND PHYTASES**
ROŞU M. , SĂRĂNDAN H. , VIOLETA TURCUS, SARANDAN M. ,

O14 **COMPARATIVE RESEARCH REGARDING THE MORPHOLOGY OF THE DORSOLUMBAR SPINAL SYSTEM IN OVINES AND CANINES**
ŞTEFĂNESCU, S., PREDOI G., BELU C., GEORGESCU B., DUMITRESCU I., DUMITRESCU F., ROŞU P.

O15 **THE INFLUENCE OF MICROBIAL IMMUNOSUPRESIVE AGENTS (PRRS, CIRCOVIRUS, MYCOPLASMA) ON THE EFFECTIVNESS OF IMMUNOPROPHYLAXIS PROGRAMS APPLIED IN BREEDING PIGS (PRELIMINARY RESULTS)**
CHIURCIU VIORICA, TUDORAN C, DIACONU LUCIA, STOICA C, IACOB I, RĂDUŢĂ MIOARA

O16 **MONITORING THE RISKS OF SOME PHYSIOLOGIC FACTORS OF LACTATION IN PIC SOWS ON THE HEALTH OF SUCKLING PIGLETS**
VLASIU A., OGNEAN L., BEREŞ M. GH., SARANDAN H., CRISTINA CERNEA, TRÂNCĂ S., RODICA SOMEŞAN

O17 **HISTOSTRUCTURAL PARTICULARITIES OF THE SYRINGEAL WALL IN *PHASIANUS COLCHICUS***
I.CAZIMIR, N.CORNILĂ, C.CONSTANTINESCU, S. SAVIN

O18 A COMPUTERIZED CELL MORPHOMETRY ANALYSIS OF ADIPOCYTES FROM THE MESENTERIC AND INGUINAL SUBCUTANEOUS ADIPOSE TISSUE ON OBESE MICE
GUBCEAC ELVIRA, POPESCU LAURA ANCA, MILITARU MANUELLA

O19 STUDIES CONCERNING THE DEVELOPMENT OF LIPID NANOSTRUCTURES FOR BIOPRODUCTS ENCAPSULATION
CRISTINA DINU PÎRVU, MARIANA FERDEȘ, ALINA ORTAN, MARIA ICHIM, VIORICA CHIURCIU, ALEXANDRU NICOLAE POPESCU, LETIȚIA PURDOIU, SIMONA IVANA

O20 STUDY OF THE AXIAL SKELETON IN THE GIRAFFE (GIRAFFA CAMELOPARDIS) COMPARED TO ITS BOVINE COUNTERPART
DAMIAN A, AL. GUDEA, ALEXANDRA BLENDEA, I. CIAMA, F. TUNS, IRINA IRIMESCU

O21 ANATOMOHISTOLOGICAL STUDY REGARDING THE OVARY AND OVIDUCT IN DIFFERENT AGE GROUPS IN THE CHICKEN (GALLUS DOMESTICUS)
BLENDEA ALEXANDRA , IULIANA CAZIMIR, N. CORNILĂ, IRINA IRIMESCU, A. DAMIAN

O22 EPIDEMIOLOGIC STUDY AND MORPHOLOGIC DIAGNOSIS ON LESIONS IDENTIFIED IN PSITTACINES
PARASCHIV IULIA, MANUELLA MILITARU, LAURENȚIU TUDOR

FUNDAMENTAL SCIENCES SESSION

POSTER PAPER

Data: 23.11.2012
Ora: 9^{00} - 10^{00}

Building A, Firs Floor
Moderators: Prof. Univ. Dr. Nicolae Dojană
Conf. Univ. Dr. Andreea Iren Şerban

P1 **ANATOMICAL AND RADIOLOGICAL STUDY OF PARTICULARITIES OF THE AUTOPODIUM IN HORSE AND PONY**
ALISTAR ADRIANA , G. PREDOI, C. BELU, C. VLĂGIOIU

P2 **CORRELATIONS BETWEEN THE ANTEBRACHIAL BONE MORPHOLOGY AND PRONATION AND SUPINATION MOVEMENT POSSIBILITIES IN DOMESTIC MAMMALS AND HUMANS**
BELU C., PREDOI G., GEORGESCU B., DUMITRESCU I., ANCA ŞEICARU , PETRONELA ROŞU , CARMEN BIŢOIU

P3 **HAEMATOLOGICAL RESEARCH ON PIGS AFTER USING SOME NONSPECIFIC IMMUNOMODULATORS**
CĂLIN V., T. PETRUŢ

P4 **STUDY REGARDING THE CORTROSYN-DEPOT EFFECTS IN LACTATING EWES**
CODREANU IULIANA , GABRIELA NEGRITU, M. CODREANU, N. DOJANĂ

P5 **OBSERVATION REGARDING THE BROMOCRIPTINE EFFECTS OF HORMONAL AND BIOCHEMICAL PROFILES IN PREGNANT AND LACTATING EWES**
CODREANU IULIANA , GABRIELA NEGRITU, M. CODREANU, N. DOJANĂ

P6 **ASPECTS OF LYMPH NODES CYTOMORPHOLOGY ON HORSES - THE BEGINNING CELL IMAGING OF NON-SPECIFIC LIMPH NODES PROLIFERATIONS**
COMAN ANA-MARIA, MANOLESCU N., BALINT EMILIA

P7 **THE STUDY OF THE "LYMPH IRRITATION SYNDROME" COMPARED TO CATTLES AND PIGS**
COMAN DRAGOS-CONSTANTIN, MANOLESCU NICOLAE, BALINT EMILIA

P8 **TISSUE RESPONSE AFTER SUBCUTANEOUS IMPLANTATION OF COLLAGEN MATRIX EMBEDDING LIPID NANOSTRUCTURES FOR MEDICAL USE**
CRACIUNESCU OANA, MOISEI MAGDALENA, UTOIU ELENA, MOLDOVAN LUCIA, TRIF MIHAELA, LEAU TRAIAN, LEAU FLORIN, ZARNESCU OTILIA

P9 **COMPARATIVE SYUDIES ON MICROSCOPIC MORPHOLOGY OF THE SEMINIFEROUS TUBULES IN 90-180 DAYS OLD COCKS**
DĂNACU VALERICA , A.T.BOGDAN, NICOLETA MOCANU,N.CORNILĂ,V.DĂNACU

P10 **RESEARCH ON HISTOSTRUCTURA ANTIGENICALLY STIMULATED LUNG IN BIRDS**
DĂNACU VALERICA , GEORGETA RADU, N.CORNILĂ, V.DĂNACU

P11 **ADAPTATIVE HYPERTROPHY OF THE RIGHT VENTRICLE IN CHRONIC PULMONARY HEART**
DINU CRISTINA, LECA FLORIN, BERGHEŞ CARMEN, CUCĂ DANIEL

P12 **THE SENSITIVITY TO ANTIBIOTICS OF SOME LACTOBACILLUS SALIVARIUS STRAINS ISOLATED FROM DENTAL ROOT CANAL AND TWO LACTOBACILLUS PROBIOTIC STRAINS**
DOBREA (POPESCU) ANCA ALEXANDRA , CONSTANTIN SAVU, MIMI DOBREA, ILEANA PĂUNESCU, GABRIEL MURARIU

P13 **ENZYME OUTPUT CAPACITY OF THE RABBIT EXOCRINE PANCREAS TO ADAPT DIFFERENTLY TO FOOD SUBSTRATE CONCENTRATION CHANGES**
DOJANĂ N, IULIANA CODREANU, LILIANA STOICA, CLAUDIA PREDA

P14 **PLASMA CORTISOL LEVEL AND MAIN METABOLISM EVOLUTION IN PREGNANT EWE**
DOJANĂ N, IULIANA CODREANU, LILIANA STOICA, COSTIN BUDICĂ

P15 **EFFECTS OF *APIUM GRAVEOLENS* LECTIN ON HEMATOLOGICAL AND BIOCHEMICAL PARAMETERS OF WISTAR RATS**
FAFANEATA CORNELIA, DOJANA NICOLAE, GHITA MARIAN, BALINT EMILIA, POP ANETA

P16 **MULTILINEAR CAPACITY ASSESSMENT OF MOUSE MESENCHYMAL STEM CELLS**
ILEA IOANA CRISTINA, PALL EMOKE, CIUPE SIMONA, CENARIU M., I.S.GROZA

P17 **POST-TRANSPLANTATION DISTRIBUTION OF CD44+ HUMAN MESENCHYMAL STEM CELLS IN A MOUSE MODEL**
ILEA IOANA CRISTINA, PALL EMOKE, CIUPE SIMONA, CENARIU M., ROXANA ROMAN, I.S.GROZA

P18 RESEARCH CONCERNING THE JOINT MORPHOLOGY OF THE FORE LIMB IN THE DOMESTIC PIG *(SUS SCROFA DOMESTICA)*
ISCRU I., PREDOI G., BELU C., GEORGESCU B., DUMITRESCU I., CARMEN BIȚOIU, FLORINA DUMITRESCU

P19 FIRST REVIEW ABOUT THE BIODIVERSITY AND DYNAMIC OF POLLINATING INSECT SPECIES OF WILD BEES (APOIDEA) IN SOME AGRICULTURAL CROPS FROM ROMANIA RELATED TO THE PROTECTION METHODS, AGRICULTURAL LANDSCAPE AND BIODIVERSITY CONSERVATION IN NATURA 2000 AREAS
MANOLE TRAIAN, IONESCU-MĂLĂNCUȘ IRINA, PETRESCU EUGENIA, CARMEN LUP, CÂMPEANU GHEORGHE, COSTACHE MANUELA-ADRIANA, CARMEN CÂMPEANU, MĂRGĂRIT GABRIELA, FĂTU VIOREL

P20 THE SUPPLEMENTATION EFFECT OF FEED WITH SELENIUM, ZINC AND MAGNESIUM ON HAEMATOLOGICAL AND BIOCHEMICAL PARAMETERS IN LAYING HENS.
MOLNAR MARIA EUGENIA, FALCĂ CONSTANTIN, PETRUSE CRISTINA

P21 THE SUPPLEMENTATION EFFECT OF FEED WITH SELENIUM, ZINC AND MAGNESIUM ON EGGS AND MEAT BIOPRODUCTIVE INDICES IN LAYING HENS
MOLNAR MARIA EUGENIA, FALCĂ CONSTANTIN, PETRUSE CRISTINA

P22 HEMATOLOGICAL AND BLOOD BIOCHEMICAL PARAMETERS IN HAMSTERS AFTER THE ADMINISTRATION OF THIAMPHENICOL
NICORESCU VALENTIN, MARIA CRIVINEANU, CAMELIA PAPUC, CORINA PREDESCU, ELENA ROTARU

P23 MORPHOPATHOLOGICAL ASPECTS IN THE GENITAL FORM OF THE AVIAN INFECTIOUS BRONCHITIS
OLARIU-JURCA A., M. COMAN, RODICA LIGHEZAN ,C. MIHALI, E. AVRAM, I. OLARIU-JURCA

P24 COMPARATIVE PHENOTYPIC ASSESSMENT OF PALATAL SUBEPITHELIAL CONNECTIVE TISSUE ISOLATED FROM DOG AND HUMAN
PALL EMOKE, CIUPE SIMONA, I.S.GROZA, CENARIU M., NICULAE MIHAELA, ROXANA ROMAN

P25 ANTIOXIDANT ACTIVITY OF SEA BUCKTHORN ETHANOLIC EXTRACTS UPON VEGETAL OILS UNDER THERMAL OXIDATION
PAPUC CAMELIA , MARIA CRIVINEANU, COSTIN PAPUC, CORINA PREDESCU, VALENTIN NICORESCU

P26 THE EFFECT OF AN ETHANOLIC EXTRACT OF NETTLE (URTICA DIOICA) ON OXIDATIVE STRESS IN MICE
PREDESCU CORINA , CAMELIA PAPUC, MARIA CRIVINEANU, VALENTIN NICORESCU

P27 ANTISTRESS ACTIVITY OF A HYPERICUM PERFORATUM HYDROETHANOLIC EXTRACT IN MICE
PREDESCU CORINA , MARIA CRIVINEANU, CAMELIA PAPUC, VALENTIN NICORESCU

P28 RESEARCH ON THE HISTROSTRUCTURE OF THE GILLS OF THE HORSE MACKEREL
RAITA ŞTEFANIA N. CORNILĂ, N. SĂVESCU, G. PREDOI, FLORICA BARBUCEANU

P29 THE OPTIMIZATION OF HISTOLOGICAL TEHNIQUES FOR ANATOMICAL PIECES
RAZVAN-MARIUS VLAGIOIU, GABRIELA CHIOVEANU, NICOLAE CORNILA, FLORICA BARBUCEANU

P30 QUANTUM DOTS INDUCE MODIFICATION ON HSPS EXPRESSIONS IN LIVER AND KIDNEY OF *CYPRINUS CARPIO*
SERBANANDREEA IREN , STANCA LOREDANA, ANCA DINISCHIOTU

P31 MORPHO-FUNCTIONAL CORRELATIONS OF THE FOREARM MUSCLES IN OVINES AND CANINES
ȘTEFĂNESCU, S., PREDOI G., BELU C., GEORGESCU I., DUMITRESCU I., CARMEN BIȚOIU, ANCA ȘEICARU

P32 SOME OBSERVATIONS ON EXPERIMENTAL MODEL FOR INDUCING DIABETES IN MICE AND RATS.
VLASE E., D. CURCĂ

P33 CURRENT ISSUES IN FISH CORTISOLE DOSAGE
ALEXANDRU LATARETU

CLINICAL SCIENCES SESSION I

ORAL PRESENTATION

Data : 22.11.2012
Ora: 15^{00} - 19^{00}

"Alexandru Locusteanu" Amphitheater– building A, First Floor
Chairman: Prof. Dr. Gheorghe Solcan
Moderators: Prof. Univ. Dr. Cornel Cătoi
Lecturer Dr. Iuliana Ionaşcu

O1 **COMPARATIVE MEDICINE – A NEW FIELD OF MEDICAL SCIENCES**
MANOLESCU N, EMILIA BALINT, G. PREDOI, C. MATEESCU

O2 **GENETIC POLYMORPHISM RESEARCH IN S.INTERMEDIUS STRAINS ISOLATED FROM DOGS AND CATS**
CĂTANĂ N., HERMAN V., DEGI J., VIRGILIA POPA

O3 **MANAGEMENT OF DACRYOCYSTITIS IN A RABBIT**
ENACHE ANDRA ELENA, IULIANA IONASCU

O4 **PRELIMINARY DATA ON SEROLOGICAL SURVEY OF EXPOSURE TO ARTHROPOD-BORNE PATHOGENS IN STRAY DOGS FROM BUCHAREST, ROMANIA**
IONITA MARIANA, VIOLETA ENACHESCU, IOAN LIVIU MITREA

O5 **THE THERAPEUTIC PLAN IN EMERGENCIES AND CRITICAL CARE**
GEORGESCU GABRIELA

O6 **THE IMPORTANCE OF INTRAOPERATIVE RETROBULBAR BLOCK ON ANESTHETIC MANAGEMENT OF ENUCLEATION**
GIRDAN GINA-TEODORA , IONASCU IULIANA

O7 **FIVE CASES OF DISCOSPONDYLITIS IN DOGS**
GROSU FLORIN, GABRIELA GEORGESCU

O8 **IRIS MELANOMA IN CATS**
IONAȘCU IULIANA, CUCOȘ CĂTĂLINA ANCA, GEORGETA DINESCU

O9 **IS THE CHROMATIC PUPILLARY REFLEX (CPR) THE "FOOTHOLD" IN THE DIAGNOSIS OF OPHTHALMIC AND NEUROLOGICAL DISORDERS?**
IULIANA IONASCU, ADINA BĂDICU

O10 **HORNER'S SYNDROME – EYE OR NEUROLOGICAL DISEASE?**
IULIANA IONASCU, ANDREEA- BIANCA BOFAN

O11 BOLI ZOONOTICE VECTORIALE. CAZURI CLINICE, PROBLEME IN EVOLUTIA INFECTIILOR
MOSCU CRISTI

O12 THE TESTING OF SOME INACTIVATED VACCINES USED FOR PREVENTION OF PIGEON PARAMYXOVIRUS IN S.P.F. HENS AND COCKS
RĂDUŢĂ MARIA MIOARA, VIORICA CHIURCIU, CONSTANTIN CHIURCIU, PETRU ŞTIUBE

O13 THE SENSITIVITY OF THE HAEMAGGLUTINATION INHIBITION TEST (HI) WITH RELATED ANTIGENS : NDV LA SOTA AND PMV - RO 96
RADUTA MARIA MIOARA

O14 CASE STUDY LIVER METASTASES IN MAMMARY CARCINOMA IN FEMALE DOGS
SOARE M, ELVIRA CONDRUŢ, GEORGETA DINESCU, N. TUDOR, C. VLAGIOIU

O15 EPIDEMIOLOGICAL RESEARCH CONCERNING THE PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME DURING 2011
FILIP SORINA EUGENIA , IULIAN TOGOE, LUCICA COMANESCU

O16 PRRS DIAGNOSIS OBTAINED BY ELISA METHOD IN PROFFESIONAL AND HOUSEHOLD BREEDING UNITS FROM BRAILA
FILIP SORINA EUGENIA, IULIAN TOGOE, LUCICA COMANESCU

O17 TROMBICULIDOSIS IN CATS – A CASE REPORT
TUDOR POLIANA, FERNOAGĂ CRISTINA, GEORGESCU GABRIELA

O18 VARIATIONS OF GLYCAEMIA AFTER ALFAXALONE INDUCTIONS IN RABBITS. PARTIAL RESULTS
TUTUNARU ALEXANDRU COSMIN, LEAU FLORIN, SONEA ALEXANDRU, SANDERSEN CHARLOTTE

O19 DIAGNOSTIC PROTOCOL OF LYME DISEASE IN CANIS LUPUS FAMILIARIS
Adrian UNGUREANU, Andra Mariana LEFTER(DOBRE), Dragos COBZARIU, Stelian BARAITAREANU, Doina DANES

O20 URETERO-ENTEROSTOMY IN THE DOG AND THE RESPONSE OF THE HEMATOLOGICAL PARAMETERS AFTER SURGERY
ZEGREAN GELU

O21 A CASE OF EXTRAHEPATIC PORTOSYSTEMIC SHUNT IN A DOG
DIACONESCU ALEXANDRU , FLORIN DUMITRESCU

O22 IMPLEMENTATION OF MOLECULAR TECHNIQUES FOR FELINE AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD) DIAGNOSTIC
TURCITU M.A. , M.D. CODREANU, CRISTINA FERNOAGĂ, IULIANA CODREANU, RALUCA CIORANU

O23 PRIMARY CUTANEOUS ASPERGILLOSIS CAUSED BY ASPERGILLUS FLAVUS, IN CAT — CASE REPORT
CARMEN NEGOIŢĂ, VALENTINA NEGOIŢĂ

O24 SEROSURVEILLANCE OF NEOSPORA CANINUM IN FARM AND COURTYARD CATTLE
ENĂCHESCU VIOLETA, MARIANA IONIŢĂ, IOAN LIVIU MITREA

O25 PRELIMINARY DATA IN COMPARATIVE SERODIAGNOSTIC OF NEOSPORA CANINUM IN DOGS
ENĂCHESCU VIOLETA, MARIANA IONIŢĂ, IOAN LIVIU MITREA

CLINICAL SCIENCES SESSION II

ORAL PRESENTATION

Data : 22.11.2012
Ora: 15^{00} - 19^{00}

"Nicolae Stamatin" Amphitheater– building A, First Floor
Chairman: Prof. Dr. Ioan Groza
Moderators: Prof. Univ. Dr. Alin Bîrţoiu
Prof. Univ. Dr. Aurel Muste

O1 **EVOLUTION OF AN OUTBREAK OF EGGS DROP SYNDROME FROM LAYERS**
CĂTANA N., HERMAN V., VIRGILIA POPA, IONICA FODOR

O2 **TRANSPLANTATION OF BIOPSIED, SEXED AND CRYOPRESERVED BOVINE EMBRYOS**
CENARIU M., GROZA I., PALL EMOKE, PARLAPAN LAURA, ILEA CRISTINA

O3 **ANATOMICAL-TOPOGRAPHIC ASPECTS AT ANIMALS AND BIRDS WITH PREDOMINANTLY SURGICAL DISEASES**
DINU S.

O4 **PERI-OPERATIVE USE OF LIDOCAINE IN HORSES**
VÎRGOLICI A , A.BÎRȚOIU

O5 **COMPARATIVE THERAPEUTIC APPROACH OF CANINE TRANSMISSIBLE VENEREAL TUMORS (TVT)**
VIŢĂLARU B. AL., I. A. BÎRŢOIU, D. CRÂNGANU1, G. POLTER

O6 **EVALUATION OF THE MULTILINEAR CAPACITY OF CANINE MESENCHYMAL STEM CELLS**
GROZA I., CĂTANĂ LAURA, PALL EMOKE, CENARIU M., POP DARIA, ILEA CRISTINA

O7 **LIMB FRACTURES REMEDIED BY EXTERNAL FIXATOR IN SMALL RUMINANTS**
LĂCĂTUŞ RADU, ISTVÁN-ZOLTÁN ANTAL, PURDOIU ROBERT CRISTIAN, MUSTE AUREL, PAPUC IONEL

O8 **HORMONAL STATUS PARTIAL STUDY OF DYNAMICS DURING POSTPARTAL FSH AND LH IN DAIRY COWS SPOTTED OF ROMANIAN**
ONIŢA P, IOAN VINTILA

O9 **PART STUDY ON PROTEIN AND MINERAL PROFILE ENERGO-**

POSTPARTALĂ DURING THE DAIRY ROMANIAN SPOTTED BREED
ONIŢA P, IOAN VINTILA

O10 **ASSESSMENT OF BOAR SEMEN PARAMETERERS PRIOR TO SEXING**
PARLAPAN LAURA, PARRILLA INMACULADA, TARANTINI TATIANA , PALL EMOKE, CENARIU M., GROZA I.

O11 **THE PRESENCE OF OCHRATOXINS IN FOODERS AND FOOD PRODUCTS AN THER IMPACT ON ANIMALS AND HUMAN HEALTH**
POSEA CATALINA , A. ŞONEA, A. BÎRŢOIU, MONICA ROMAN, MIHAELA VASILE, CAMELIA ION

O12 **THE EFFICACY OF DIFFERENT ACARICIDES AGAINST THE HARD TICK *DERMACENTOR MARGINATUS* ON INFESTED SHEEP**
CONSTANTIN TIBERIU, PARASCHIV IULIA, MARIANA IONITA, IOAN LIVIU MITREA

O13 **OVERVIEW OF THE EPIDEMIOLOGICAL AND MORPHOLOGICAL ASPECTS OF THE CUTANEOUS MALIGNANT EPITHELIAL TUMORS IN DOG**
DINESCU GEORGETA , ELVIRA CONDRUŢ, ŞERBĂNICĂ VIRGINIA, A. FEGHIU

O14 **RETROSPECTIV STUDIES OF THE EPIDEMIOLOGICAL AND MORPHOLOGICAL ASPECTS OF THE CUTANEOUS MALIGNANT MESENCHYMAL TUMORS IN DOG**
DINESCU GEORGETA , SELDA CURTSEIT, BUCICĂ LAURA, MANUELLA MILITARU

O15 **CLINICAL AND IMAGISTIC CORRELATIONS IN PACIENTS WITH RENAL FAILURE**
BRADEA A, CODREANU M.D., VLAGIOIU C.

O16 **EXTRAGENITAL LOCALISATION OF CANINE TRANSMISSIBLE VENEREAL TUMOR – CASE REPORT**
FEGHIU ADRIAN , DIACONESCU AL., SOARE T., MILITARU MANUELLA

O17 **EXPERIMENTAL SURGERY, BASIS FOR PROVIDING ADVANCES IN HUMAN AND VETERINARY GENERAL SURGERY**
LASTOFKA D.

O19 **FREEYING CANINE SEMEN: HOW DO WE WANT IT?**
STANESCU (PASCAL) M., BÎRŢOIU I.

O19 **INFLUENCE OF AUTOLOGOUS PROSTATIC FLUID ADDED TO FROZEN-THAWED DOG SEMEN**
STĂNESCU (PASCAL) M., BÎRŢOIU, I., DELEUZE, S.

CLINICAL SCIENCES SESSION

POSTER PAPER

Data : 23.11.2012
Ora: 9^{00} - 10^{30}

Building A, First Floor
Chairman: Conf.Univ. Dr. Alexandru Diaconescu
Moderators: Conf. Univ. Dr. Mario Codreanu
Conf. Univ. Dr. Mihaela Popp
Lecturer Dr. Nicolae Tudor

P1 **HEART RATE VARIABILITY FOR ASSESSING STRESS IN COWS**
ANTON ALINA, SOLCAN GHEORGHE

P2 **ADRENOCORTICAL RESPONSE IN COWS AFTER INJECTION OF ADRENOCORTICOTROPIC HORMONE**
ANTON ALINA , SOLCAN GHEORGHE

P3 **THE CYTOLOGIC DIAGNOSIS CONCERNING THE CAVITARY EFFUSIONS IN BOVINES**
ANCUŢA ANDREEA ROXANA , CORNELIU V. COTEA

P4 **PREVALENCE OF GASTROINTESTINAL PARASITES IN DOGS FROM TIMIŞ COUNTY AND THEIR RISK TO PUBLIC HEALTH**
ANDREI SIDONIA, M. S. ILIE, GH. DĂRĂBUŞ

P5 **IDENTIFYING CANINE DISTEMPER VIRUS USING MOLECULAR BIOLOGY TECHNIQUES**
BAGRINOVSCH GABRIELA, M.A. TURCITU, ANDRA DOBRE1, S. BARAITAREANU1, DOINA DANES

P6 **MRI EXAMINATION OF THE GENITAL TRACT IN FEMALE DOGS**
BALAN LAURENTIU, ANGELICA MANGRAU

P7 **LYMPHONODE DESCRIPTIVE CYTOMORPHOLOGY SUBSEQUENT TO CANCER METASTASIS - EXPERIMENTAL STUDY-**
BALINT EMILIA , N. MANOLESCU, MIRELA MEITA, DANIEL LASTOFKA

P8 **COMMENTS ON HISTOPATHOLOGICAL CHANGES IN RABBIT LIVER WITH EIMERIOSIS**
BĂCESCU BOGDAN-IOAN

P9 **A STUDY REGARDING CYTOHISTOLOGICAL MODIFICATIONS OF THE EXPERIMENTAL INFECTED CHICKEN WITH WEST NILE VIRUS**
FLORICA BARBUCEANU, VALERIA PURCĂREA-CIULACU, GABRIELA NICOLESCU A. POPOVICI, AURORA ALEXSE, CRISTINA DIACONU, C. DIACONU, D. HRISTESCU

P10 **STUDY OF SEASONAL DYNAMICS IN RESPIRATORY MICROBIAL FLORA IN EXTENSIVELY RAISED GOATS**
BORDEANU ARMELA-DIANA U, FLORINA-ALEXANDRA KRUPACI, TIMEA KISS, MARINA SPÎNU

P11 **STUDY OF THE MORPHOLOGICAL BASIS IMPLICATED IN INHALATORY ANAESTHESIA AT DOGS: A PERSONAL RESEARCH**
BORS CONSTANTIN1,NICOLAE CORNILA,TRAIAN LEAU

P12 **REMARKS ON THE DIAGNOSIS OF RIGHT BUNDLE BRANCH BLOCK ON DOGS**
BRĂSLAŞU C.M., DANIELA ELENA BRĂSLAŞU, SILVIA JOIŢA, TĂNĂSIE DANA

P13 **CLINICAL RESEARCH ABOUT THE LEFT ATRIUMPATHOLOGY AT PETS**
BRĂSLAŞU DANIELA ELENA , ANA GOANŢĂ, IOANA LĂCRIŢEANU, SILVIA JOIŢA, C.M. BRĂSLAŞU

P14 **INCIDENCE OF MOBILE SEROVARS OF SALMONELLA SPP. ISOLATED FROM GALLUS GALLUS IN 2010**
CLEP RAMONA NICOLETA, NEGHIRLA IOANA ALEXANDRA

P15 **COMPARISON OF TWO IN VITRO TYPING METHODS FOR THE FELINE AB BLOOD GROUP SYSTEM**
COBZARIU DRAGOS , SANZIANA RADULESCU, STELIAN BARAITAREANU, DOINA DANES

P16 **CRITICAL POINTS IN CLINICAL AND THERAPEUTICAL APROACHING OF THE NON-CARDIOGENIC PULMONARY EDEMA IN SMALL ANIMALS**
CODREANU M.D., CRISTINA FERNOAGĂ, M. CORNILĂ, IULIANA CODREANU, M. TURCITU

P17 **ULTRASONOGRAPHYC CHANGES OF THE URINARY BLADDER IN DOGS` PATHOLOGIC CONDITIONS**
CODREANU M.D., CRISTINA FERNOAGĂ, M. CORNILĂ, IULIANA CODREANU, D. CRINGANU, A. BRADEA

P18 **STUDIES ON THE DIAGNOSIS AND TREATMENT OF SOME URINARY BLADDER DISORDERS IN DOG**
CRIVINEANU MARIA , MARIO DARIUS CODREANU, VALENTIN NICORESCU, ELENA ROTARU, CAMELIA PAPUC

P19 **STUDIES ON THE DIAGNOSIS AND TREATMENT OF MAMMARY TUMORS IN CAT**
CRIVINEANU MARIA, DAN CRÎNGANU, VALENTIN NICORESCU, RALUCA CRÎNGANU, FLAVIUS VANEA

P20 IATROPATHIC DISEASES INDUCED BY WRONGLY ADMINISTERED CHEMOTHERAPY
CRÎNGANU DAN, CRIVINEANU MARIA , CRÎNGANU RALUCA

P21 THE CYTOSTATIC DISEASE CONSECUTIVE TO CHEMOTHERAPY IN THE ONCOPATHOLOGY OF PET ANIMALS
CRÎNGANU DAN PREDA CRISTINA CODREANU MARIO CRÎNGANU RALUCA

P22 DIFFERENTIAL DIAGNOSIS AND MULTIMODAL THERAPY IN THE NEOPLASTIC DISEASES OF THE PROSTATE IN DOGS
CRÎNGANU RALUCA, CRÎNGANU DAN, ALEXANDRU ŞONEA

P23 ANATOMICAL AND METABOLIC CHANGES INDUCED IN EXPERIMENTAL ANIMALS BY CYTOSTATIC THERAPY
CRÎNGANU RALUCA, CRÎNGANU DAN, CRÎNGANU IULIANA

P24 EMERGING AND REEMERGING DISEASES IN LIVESTOCKS
DANEŞ DOINA

P25 SEROPREVALENCE BY IMMUNOFLUORESCENCE OF CANINE LYME DISEASE IN CONSTANŢA
DANIELA ENACHE, MIRELA IMRE, D. COPREAN, M. S. ILIE

P26 NECROTIZING FASCIITIS IN DOG – CASE STUDY
DÉGI JÁNOS, KÁLMÁN IMRE, STANCU ADRIAN, MORAR DORU

P27 A CASE OF BLISTER DISEASE TO BOA CONSTRICTOR
DÉGI JÁNOS, KÁLMÁN IMRE, VIOREL HERMAN, CĂTANĂ NICOLAE

P28 PREVALENCE OF CRYPTOSPORIDIOSIS IN CATTLE IN ERZURUM REGION OF TURKEY
ESIN GUVEN, HAMZA AVCIOGLU, IBRAHIM BALKAYA, SIRRI KAR, ZAFER KARAER

P29 HYDROCEPHALUS IN DOGS
FERNOAGĂ CRISTINA, MARIO CODREANU, MIHAI CORNILA

P30 HYPERTHYROIDISM IN CATS
FERNOAGĂ CRISTINA, MARIO CODREANU, MIHAI CORNILA

P31 OSTEOSARCOMA IN A ROTTWEILER DOG
GÂRJOABĂ IONUŢ CRISTIAN, TĂNASE ANDREI OVIDIU

P32 OPENED QUESTIONS IN THE DIAGNOSIS OF CANINE BABESIOSIS: MICROSCOPIC AND MOLECULAR APPROACH
IMRE MIRELA , MARIUS S. ILIE, KÁLMÁN IMRE, IONELA HOTEA, PETRUSE CRISTINA, SZABADOŞ FLORIN, GHEORGHE DĂRĂBUŞ

P33 CASE OF A 2 YEAR ADOPTED DSH CAT WITH ACUTE ABDOMINAL TRAUMA, POST-RISCKETS SKELETAL ABNORMALITIES AND UNILATERAL RENAL HYPOPLASIA
LESCAI DANIEL CONSTANTIN

P34 **PROBIOVIT PHYTOTHERAPY EFFECTS OF DIARRHEAL SYNDROMES IN PIG**
LOREDANA MIHAELA VASILE , I.RADOI, AL. ŞONEA, CRISTINEL ŞONEA , A. BÂRŢOIU , CATALINA POSEA

P35 **CLINICAL AND PARACLINICAL CHANGES IN CUSHING`S SYNDROME IN DOGS**
MARIN (IVAŞCU) GABRIELA, M.D. CODREANU, MARIA CRIVINEANU

P36 **ERRATIC PARASITISM WITH LIGULA INTESTINALIS L. PLEROCERCOIDS ON PERCH PERCA FLUVIATILIS L. – CASE STUDY**
MIRON MANUELA , RAMONA SORIC, LIVIU MIRON

P37 **RESEARCHES ON THE CYATHOSTOMINES RESISTANCE PHENOMENON IN HORSES FROM WESTERN ROMANIA**
MORARIU SORIN, BOGDAN T. ALEXANDRU, OPRESCU ION, NARCISA MEDERLE, ILIE MARIUS, DĂRĂBUȘ GHEORGHE

P38 **ASSESMENT OF SERUM PROTEIN AND LIPID COMPOSITION IN CATTLE WITH FASCIOLA HEPATICA**
OZGUR KAYNAR, HAMZA AVCIOGLU, ESIN GUVEN, MUSTAFA ILERITURK

P39 **EVALUATION OF COMPUTATIONAL MODIFICATIONS IN HPTLC WITH GEL ANALYSIS SOFTWARE AND FLATBED SCANNER IN LIPID SEPARATION**
OZGUR KAYNAR, MUSTAFA ILERITURK, ARMAGAN HAYIRLI

P40 **PITUITARY VS PLACENTAL GONADOTROPINS ACTIVITIY IN BITCH**
POPESCU MIHAI CRISTIAN , MARIA CRIVINEANU

P41 **STUDIES ON THE THERAPY WITH GONADOTROPIN-RELEASING HORMONE (GNRH) AND HUMAN CHORIONIC GONADOTROPIN (HCG) IN SOME GENITAL DISORDERS IN BITCHES**
POPESCU MIHAI CRISTIAN, MARIA CRIVINEANU, MARIO DARIUS CODREANU

P42 **COMPARISON OF PCV VALUE PRIOR AND FOLLOWING WHOLE BLOOD TRANSFUSION THERAPY IN 86 DOGS**
RADULESCU SINZIANA, ANDREEA CRISTINA MIHAIL, 1ANA MARIA IONESCU,GABRIELA GROSU, RUXANDRA MARIA FLOREA, IOANA CAFRITA

P43 **FELINE FIBROSARCOMA: RETROSPECTIVE EPIDEMIOLOGICAL STUDY**
RIZAC RALUCA IOANA, ILIESCU SIMONA, CIOBOTARU EMILIA, MILITARU MANUELLA

P44 **ALTERNATIVE CHEMICAL IMMOBILISATION IN A GROUP OF CAPTIVE FERAL HORSES USING A HOMEMADE REMOTE DELIVERY SYSTEM**
ROSU UDRESCU LA, BIRTOIU A

P45 **CLINICAL AND MORPHOLOGICAL INVESTIGATIONS IN A DISTEMPER DISEASE OUTBREAK IN SILVER FOXES**
SAVUŢA G., PAŞCA S.

P46 **ULTRASOUND THERAPY IN RELIEVING INFLAMMATORY JOINT DISEASES IN DOGS**
SCURTU LAURA , AUREL MUSTE1, FLORIN BETEG, LOREDANA HODIS1, IULIU SCURTU, RODICA UNGUR, IOAN ONAC

P47 ***GIARDIA SPP. IN CATS: POTENTIAL FACTOR OF TRANSMISSION TO HUMANS***
SORESCU IONELA DENISA, S. MORARIU, I. OPRESCU, NARCISA MEDERLE, M. S. ILIE, IONELA HOTEA, SIMON BÉATA, GH. DĂRĂBUŞ

P48 **RESEARCH ON IDIOPATHIC STOMATITIS IN CATS**
ŞINDILAR E.-V., S. PAŞCA

P49 ***NEOSPORA CANINUM - ASSOCIATED ABORTION IN DAIRY CATTLE OF ROMANIA***
ŞUTEU OVIDIU , ANAMARIA PAŞTIU , ADRIANA GYÖRKE , GABRIEL BORZA , ADRIAN ARDELEAN , VASILE COZMA

P50 **USE MOET PROGRAMME FOR DEVELOPMENT AND CONSERVATION OF SOME RACES OF BOVINE IN ROMANIA**
TOBĂ G.F., A.T. BOGDAN, M. TH. PARASCHIVESCU, M.CORNILĂ, L. IONIŢĂ, L.G. TOBĂ F.BĂNĂŢEANU

P51 **PELODERA DERMATITIS IN DOGS – A CASE REPORT**
TUDOR POLIANA, MATEESCU C., CAZIMIR IULIAN1, TUDOR N.

P52 **INFLUENCE OF HIGH TEMPERATURE ON REPRODUCTION IN SOWS**
VASILE LOREDANA MIHAELA, AL. ŞONEA, A. BÂRŢOIU, I.RADOI ,CATALINA POSEA

P53 **THE CHARACTERISTICS OF LAMENESS IN DAIRY COWS**
GÎSCĂ DAN

P54 **STUDY REGARDING METABOLIC PROFILE IN COWS BY AGE, GROWTH SYSTEM AND PHYSIOLOGICAL STATUS**
BOTEZATU A., CODREANU M.D., VLAGIOIU C.

P55 **A CASE STUDY OF LETHAL CPV NEW VARIANTS INFECTION**
POPA MIRELA , VIRGILIA POPA, MILIANA PETROF, NICOLAE ALEXANDRU, MIHAI VISAN

P56 **CLINICAL AND MORPHOPATHOLOGICAL ASPECTS IN ANTI-FREEZE INTOXICATION OF DOGS**
PAȘCA S.A., GH. SOLCAN, E.V. ȘINDILAR, M. LAZĂR, ANCA ROTARU

P57 **THE PRESENCE OF *OCHRATOXINS* IN FOODERS AND FOOD PRODUCTS AN THER IMPACT ON ANIMALS AND HUMAN HEALTH**
CATALINA POSEA, A. ȘONEA, A. BÎRȚOIU, MONICA ROMAN, MIHAELA VASILE, CAMELIA ION

P58 **INFLUENCE OF HIGH TEMPERATURE ON REPRODUCTION IN SOWS**
LOREDANA MIHAELA VASILE, AL. ŞONEA, A. BÂRŢOIU , I.RADOI, CATALINA POSEA

P59 **CLINICAL, RADIOLOGICAL AND MORPHOLOGICAL ASPECTS IN CHYLOTHORAX IN CATS – CASE STUDY**
CRISTINA BARBAZAN, ANCA ROTARU, ANDREEA ANCUȚA, VASILE VULPE

P60 **BIOCOMPATIBILITY ASSESMENT OF NOVEL TITANIUM ALLOYS USING SCANNING ELECTRON MICROSCOPY**
BERCE CRISTIAN , GEORGE UNGUREANU, OLGA SORIȚĂU, LAURA PARLAPAN, ADRIANA VULPOI

P61 **CASE REPORT OF CANINE DISSEMINATED HISTIOCYTIC SARCOMA WITH CUTANEOUS INVOLVEMENT**
CURTSEIT SELDA, CONDRUT ELVIRA, LEONARDI LEONARDO, DEL ROSSI EMILIA, MILITARU MANUELLA

P62 ***DIROFILARIA IMMITIS*: CASE REPORTS AND LITERATURE REVIEW**
DUCA I., F. LECA, A. FOTIN

P63 **POST-TRANSPLANTATION DISTRIBUTION OF CD44+ HUMAN MESENCHYMAL STEM CELLS IN A MOUSE MODEL**
ILEA IOANA CRISTINA, PALL EMOKE, CIUPE SIMONA, CENARIU M., ROXANA

P64 **PROTOCOLS FOR INDUCTION OF ESTRUS IN FEMALE DOG**
ION CAMELIA, A. ȘONEA, A. BÎRȚOIU, S.CIUPE, CATALINA POSEA, MIHAELA

P65 **REVIEW PAPER - CURRENT ISSUES IN FISH CORTISOLE DOSAGE**
LATARETU ALEXANDRU

P66 **THERAPEUTICAL AND ETIOPATHOGENIC RESEARCH ON BLADDER IN DOGS**
LEAU T.; LEAU.F; LASTOFKA, D.

P67 **VIROLOGICAL DIAGNOSIS IN AUJESZKY'S DISEASE**
SIMONA-ELENA LEAU, LENUŢA-GABRIELA ZAMFIR, M. TURCITU, V. VUȚĂ, D. BONCEA, FLORINA DUMITRESCU, ANGELA ONCIUL, GH. BĂRBOI

P68 **THERAPEUTICAL AND ETIOPATHOGENIC RESEARCH ON BLADDER IN DOGS**
LEAU T., LEAU F., LASTOFKA, D.

P69 **THE PRURITIC DOG AND THE DIAGNOSIS OF ATOPIC DERMATITIS**
LEFTER (DOBRE)ANDRA MARIANA, A. UNGUREANU, D. COBZARIU, DOINA DANEŞ

P70 **STUDY ON THE DIAGNOSIS AND NUTRITIONAL MANAGEMENT OF OVERWEIGHT AND OBESITY IN DOGS**
MANASIA A., IONIŢĂ, L., VLĂGIOU, C., AILENEI DIANA, CRĂCIUN ALEXANDRA

P71 **STUDY REGARDING PANCREATIC DISEASES IN DOGS**
MATEESCU ROMANIŢA, MATEESCU C., TUDOR N., VLĂGIOIU C.

P72 **STUDY REGARDING ECTOPARASITES IN DOGS AND CATS**
MATEESCU ROMANIŢA, TUDOR POLIANA, MATEESCU C.

P73 **STUDY REGARDING URINARY SISTEM DISEASES IN CATS**
MATEESCU C, VLĂGIOIU C., MATEESCU ROMANIŢA, TUDOR N.

P74 **RETROSPECTIVE STUDY OF THE ORTHOPAEDIC ACTIVITY ON LONG BONE FRACTURES IN AN UNIVERSITARY VETERINARY CLINIC IN TIMISOARA**
PROTEASA ADELINA , ROXANA DASCĂLU, LARISA SCHUSZLER, CORNEL IGNA

P75 **PATHOLOGY OF ADAPTATION TO DAIRY PURCHASED ON THE UE MARKET UNDER CHANGE CLIMATE**
RETEA C., RETEA GENICA

P76 **SENTINEL LYMPH NODES IMAGING AFTER PERITUMORAL ADMINISTRATION OF SONOVUE**
STAN FLORIN , MARIUS PENTEA, ALEXANDRU GUDEA, AUREL DAMIAN

P77 **CORELATION BETWEEN PERITUMORAL LYMPHATIC VASCUALR AREA AND LYMPH NODES METASTASES IN MAMMARY GLANDS NEOPLASIA OF FEMALE DOGS**
STAN FLORIN GHEORGHE

P78 **EVALUATION OF MICROFLORA ASSOCIATED WITH CANINE OTITIS EXTERNA**
TOPALĂ ROXANA , I. BURTAN, M. FÎNTÎNARIU, S. CIOBANU, L.C. BURTAN, BURCOVEANU IOANA

P79 **CLINICALLY AND ULTRASONOGRAPHIC EXAMINATION FINDINGS IN A COW WITH RIGHT SIDED ABOMASAL DISPLACEMENT AND TRAUMATIC RETICULOPERITONITIS**
ERSOY BAYDAR, ALI SAIT DURMUŞ

P80 **NEUROMODULATION AFTER NERVE GRAFTING INTO THE SPINAL CORD IN RATS**
CATOI CORNEL, VON WILD TOBIAS, VON WILD KLAUS, TRILLENBERG PETER, HEIDBREDER MARC,MURESANU DAFIN, MAILÄNDER PETER, MICLAUS VIOREL[1], TABARAN FLAVIU, LAURA FARCAS

P81 **RESEARCH REGARDING EVALUATION OF RAM'S SEMEN, COLLECTED BY ELECTROEJACULATION, OUT OF THE BREEDING SEASON**
BORZAN MIHAI MARIAN, MORAR IANCU ADRIAN, MORAR GLAD

P82 ***HISTOMORPHOMETRY OF SHEEP (OVIS ARIES) AND GOAT (CAPRA HIRCUS) HUMERUS***
GUDEA ALEXANDRU, DEZDROBITU CRISTIAN, TUNS FLAVIU

P83 **THE IMPORTANCE OF PIG TONSILS REMOVAL FOR THE FINAL ASSESSMENT OF THE CARCASSES' HYGIENE QUALITY**
LĂPUŞAN ALEXANDRA, MIHAIU LIORA, MIHAIU MARIAN, DAN SORIN[1], ROMOLICA MIHAIU, CARMEN JECAN, IONUŢ CORDIŞ, DORINA DRAGOMIR

P84 **THE EVALUATION OF THE ANTIMICROBIAL RESISTANCE OF *ESCHERICHIA COLI* AND *SALMONELLA* SPP. STRAINS ISOLATED FROM RAW MEAT**
MIHAIU LIORA, MIHAIU MARIAN, LĂPUŞAN ALEXANDRA, DAN SORIN[2], ROMOLICA MIHAIU, CARMEN JECAN, IONUŢ CORDIŞ

P85 **FACULTY OF VETERINARY MEDICINE BUCHAREST CONTRIBUTION TO ENSURING THE NECESSARY VETERINARY PROFESSIONALS IN ROMANIA OF 2012**
POPA, V.V., IONITA, L

P86 **MEDICAL-VETERINARY ECOPATOLOGIA CONTEXT ECOECONOMIC AND BIOECONOMIC EUROPEAN STRATEGIES AND GLOBAL IN VIEW OF THE XXI CENTURY**
*IONIŢĂ, L., BOGDAN, A.T., MATHE E., IONIŢĂ CARMEN, IVANA SIMONA, IPATE IUDITH, TOBĂ, G.F***.**

PUBLIC HEALTH AND ANIMAL PRODUCTION AND VETERINARY EDUCATION

ORAL PRESENTATION

Data: 22.11.2012
Ora: 15^{00} - 19^{00}

„A.E. Popoviciu" Aula, Preclinical Sciences Building
Chairman: Prof. Dr. Marian Mihaiu
Moderators: Prof. Univ. Dr. Manuella Militaru
Conf. Univ. Dr. Elena Mitrănescu

O1 **BIOŞTIINŢELE MEDICALE VETERINARE ÎN CONTEXTUL ECOSANOGENEZEI ŞI AL TRIADEI SIGURANŢEI ŞI CREŞTERII SECURITĂŢII ALIMENTELOR ŞI CONSUMATORILOR**
A.T. BOGDAN, GABRIEL PREDOI

O2 **NEW STEPS IN QUALITY CONTROL FOR FOOD SAFETY – LEARN SIX SIGMA**
BELOUS MĂDĂLINA

O3 **SOME ASPECTS OF THE HISTORY OF THE ROMANIAN SCIENTIFIC SOCIETIES OF VETERINARY MEDICINE**
CURCĂ DUMITRU, IOANA CRISTINA ANDRONIE VIOREL ANDRONIE

O4 **INDIRECT EVALUATION OF THE STERILIZATION/NON-STERILIZATION EFFECTS ON THE WELFARE IN DOGS**
FILIPENCO NATALIA, S. BARAITAREANU

O5 **STUDY REGARDING THE ANIMAL WELFARE AND PREVENTIVE MEDICINE IN THE POPULATION OF DOGS IN BUCHAREST**
FILIPENCO NATALIA , S. BARAITAREANU

O6 **NATIONAL CENTRE OF GREAT BUSTER GROWTH AND REPRODUCTION IN SEMICAPTIVITY FOR RESTOCKING OF POPULATION IN ROMANIA**
GARLEA CRISTINA, ION PREDOI, LUCIAN DUMITRU, MARIN ANTON, FLORIN RADU

O7 **AFLATOXIN AND OCHRATOXIN CONTAMINATION IN POULTRY- A REVIEW**
GHIMPEŢEANU OANA-MĂRGĂRITA , ANDREEA TOLESCU, *MANUELLA MILITARU, CLAUDIA CONSTANTINESCU*

O8 **ASSESEMENT OF MINERAL NUTRIENTS, HEAVY METALS AND PESTICIDES IN POULTRY LIVER USING ICP-MS AND GC/MS**
GHIMPEŢEANU OANA-MĂRGĂRITA , CRISTINA ŢOCA, ELENA MITRĂNESCU, FLORICA BĂRBUCEANU, MANUELLA MILITARU

O9 **WELFARE ASSESSMENT IN DAIRY COWS IN A FARM FROM PRAHOVA COUNTY**
MITRANESCU ELENA, TUDOR L., ROXANA VATASELU, LATARETU A., FURNARIS F.

O10 **NONCOMPLIANCES WHICH LEADS TO AN INEFFICIENT PEST CONTROL IN MEAT PROCESSING PLANTS**
RUSEN GABRIELA

HEALTH AND ANIMAL PRODUCTION AND VETERINARY EDUCATION

Data: 23.11.2012
Ora: 9^{00} - 10^{30}

BuildingA, First Floor
Chairman: Prof. Univ. Dr. Constantin Culea
Moderators: Conf. Dr. Dana Tăpăloagă

P1 **VIRULENCE FACTORS IN *LISTERIA MONOCYTOGENES* STRAINS FROM ANIMAL PRODUCTS**
CAPLAN MARIUS EDUARD , ALINA MARIA HOLBAN, LORENA ANDREEA MATEESCU

P2 **RESEARCHES REGARDING THE INCUBATION INDICES DYNAMICS IN COBB 500 HYBRID**
CULEA CONSTANTIN, NEAGU IULIANA, TĂPĂLOAGĂ DANA, MARMANDIU ANDREI, TĂPĂLOAGĂ PAUL-RODIAN

P3 **HETEROGENEITY OF *SALMONELLA* STRAINS AND THEIR COMPETITION IN ROMANIAN POULTRY FARMS**
DANES DOINA, S. BARAITAREANU, S. PARVU¸ ELENA ROTARU

P4 **EFFECTIVE TEACHING-LEARNING METHODS AND TECHNIQUES APPLICABLE TO VETERINARY MEDICAL PRACTICE**
DOBRE I.R., SILVIA OANA DOBRE

P5 **EVALUATION OF SOME THERAPEUTIC SCHEMES IN CONTROL OF VARROOSIS ON APIARIES IN THE MOUNTAIN VALLEY FROM PRAHOVA COUNTY**
DUMITRU ADRIAN , GABRIELA CHIOVEANU, IOAN LIVIU MITREA

P6 **ECO-ECONOMIC PROMOTING OF ORGANIC TRADITIONAL PRODUCTS OF MUSCEL IN THE CONTEXT OF FOOD SECURITY AND SAFETY**
ENACHE MIHAI-LIVIU, AMALIA-GIANINA STRĂTEANU, IUDITH IPATE

P7 **E-LEARNING SYSTEM IN VETERINARY MEDICINE HIGHER EDUCATION IN HRDSOP PROJECT 86/1.2./S/63654**
GABRIEL PREDOI, IULIANA IONASCU, PETRONELA ROSU, RALUCA BURLACU

P8 **THE POTENTIAL USE OF NEAR-INFRARED SPECTROSCOPY FOR THE QUALITY ASSESSMENT OF EGGS AND EGG PRODUCTS**
GALIŞ ANCA-M. , LAURA M. DALE, CHRISTELLE BOUDRY , ANDRÉ THÉWIS

P9 ***NOSEMA CERANAE* PREVALENCE IN *APIS MELLIFERA* - A REVIEW**
GHIMPEŢEANU OANA-MĂRGĂRITA , MANUELLA MILITARU, LAURENŢIU TUDOR

P10 STUDY ON THE CHEMICAL COMPOSITION OF GOAT MEAT SAMPLES CORRELATED WITH THEIR AGE
ILIE L.I., TUDOR L., FURNARIS F., GALIŞ ANCA-MARIA

P11 IMPORTANCE OF THE GOAT SLAUGHTER AGE ON TECHNOLOGICAL PARAMETERS OF THEIR CARCASS
ILIE L.I., TUDOR L., MITRĂNESCU ELENA, GALIŞ ANCA-MARIA

P12 FOOD SECURITY AND ADAPTATION TO CLIMATE CHANGE - GENOTYPING FOR RESISTANCE OF DISEASE
IPATE IUDITH, BOGDAN A.T, SEREGI JANOS, GOTTFRIED BREM , CONSTANTA STRASSER

P13 COMPLIANCE GENERAL AND SPECIFIC HYGIENE RULES FOR FOOD
LUPESCU CONSTANTIN, ADRIAN VASILE, RARES POPA

P14 TRANSFER FACTORS FOR ENDOCRINE DISRUPTING COMPOUNDS FROM FEED TO MILK
MICLEAN MIRELA , CECILIA ROMAN, IOAN STEFAN GROZA

P15 MICROBIOLOGICAL QUALITY OF SOME TRADITIONAL PRODUCTS
NEAGU IONUT , C.SAVU, BOITEANU CATALINA, O. SAVU

P16 RESEARCHES REGARDING THE COMPARATIVE EFFICACY OF THE COMBINED INTER FAMILIAL, FAMILIAL AND BY OWN PERFORMANCES SELECTION APPLIED TO THE BREEDING OBJECTIVE CHARACTERS IN A MEAT HEN BREED
NEAGU IULIANA, CULEA CONSTANTIN, TĂPĂLOAGĂ DANA, TĂPĂLOAGĂ PAUL-RODIAN, MARMANDIU ANDREI, PĂUNESCU ILEANA CORNELIA

P17 STUDY ON COMPLIANCE WITH CUTTING TECHNOLOGY AND IMPACT ON QUALITY CATTLE CARCASSES
PETCU CARMEN DANIELA

P18 EVALUATION OF FOOD ESTABLISHMENTS
POPA RARES, ADRIAN VASILE, CONSTANTIN LUPESCU

P19 THE IMPACT OF PRACTICAL STAGES IN VETERINARY MEDICINE - HRDSOP PROJECT 91/2.1./S/63915
PREDOI GABRIEL , ANETA POP, STEFANIA RAITA, CLAUS BERTEA

P20 EVALUATION OF *SALMONELLA* ENTERITIDIS AND *SALMONELLA* TYPHIMURIUM SEROTYPES CIRCULATION IN POULTRY POPULATIONS IN ROMANIA
ROTARU ELENA , S. BARAITAREANU, S. PARVU, DOINA DANES

P21 **RESEARCHES REGARDING THE BODY WEIGHT DYNAMICS IN METIS YOUNG GOATS SAANEN X CARPATINA BREEDS AND MOTHERS MILK PRODUCTION**
TĂPĂLOAGĂ DANA, NEAGU IULIANA,TĂPĂLOAGĂ PAUL-RODIAN, CULEA CONSTANTIN, MARIN MONICA, MARMANDIU ANDREI, PĂUNESCU ILEANA CORNELIA

P22 **INCIDENCE OF SALMONELLA SPP IN MEAT AND MEAT PRODUCTS DURING 2009-2011 IN DOLJ COUNTY**
TITA STEFANITA, C. SAVU, DOBREA (POPESCU) ANCA, O. SAVU

P23 **DETECTION OF LISTERIA MONOCYTOGENES IN FOOD PRODUCTS USING A POLYMERASE CHAIN REACTION-BASED METHOD IN COMBINATION WITH A STANDARD REFERENCE ENRICHMENT STEP**
TUDOR LAURENŢIU, ANCA-M. GALIŞ, ELENA MITRĂNESCU, ANETA L. TUDOR

P24 **OCCURRENCE OF *CAMPYLOBACTER* SPP. IN ROMANIAN BROILER CHICKEN PRODUCTION SECTOR**
TUDOR LAURENŢIU, ANCA-M. GALIŞ, MANUELLA MILITARU, ELENA MITRĂNESCU

P25 **OPERATION AND HYGIENE OF FOOD ESTABLISHMENTS**
VASILE ADRIAN , CONSTANTIN LUPESCU, RAREŞ POPA

P26 **HUMAN HEALTH ISSUES ASOCIATED WITH EXPOSURE TO SWINE FARM**
TEODORESCU DOINA ILEANA, CRISTINA GARLEA, MARIA TEODORESCU

P27 **INTEGRATED USE OF CARBOHYDRATES AND PHENOLIC STRUCTURES FOR THE FRACTIONING OF LIGNOCELLULOSIC RESIDUES**
PURDOIU LETIŢIA , VIORICA CHIURCIU, ALEXANDRU NICOLAE POPESCU[2], ELISAVETA ŢULUCA[3], CRISTINA DINU PÎRVU, MARIA ICHIM, LUCIAN IONIŢĂ, SIMONA IVANA

P28 **PASTORAL BIOECONOMY TRADITION AND CUSTOMS IN SIBIU MARGINIME**
TRÎMBIŢAŞ, B., IONIŢĂ CARMEN, VLĂGIOIU, C.

P29 **THE PROTECTIVE EFFECT OF SOME BIOACTIVE BEE AND VEGETALE PRODUCTS IN EXPERIMENTALLY INDUCED INFECTIONS WITH STAPHYLOCOCCUS AUREUS IN MICE**
NICODIN IOSIF FIŢ, LIVIU MĂRGHITAŞ, GABRIELA BIRTAŞ, FLORE CHIRILĂ, GEORGE NADĂŞ

STUDY OF THE AXIAL SKELETON IN THE GIRAFFE (*GIRAFFA CAMELOPARDIS*) COMPARED TO ITS BOVINE COUNTERPART

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Introduction
The giraffe (*Giraffa camelopardis*) is known as the tallest land mammal of African origins. Its unique evolution has led to the development of singular morphological features. Its rare presence outside its natal continent makes the giraffe a rarely studied species in our country, which makes any new research regarding this species a valuable addition to our anatomic database.

Materials and Methods
The study was performed in the Comparative Anatomy Laboratory of the Faculty of Veterinary Medicine of Cluj-Napoca. One giraffe body and two cow skeletons were used to determine the anatomical differences between the thoracic, lumbar sacral and coccygeal segments of the vertebral column, the ribs and the sternum in these two species. The body was processed through usual techniques maintaining the thoracic skeleton intact due to the individual's young age. The cow skeletons belong to our ossuary collection. We have chosen to compare the giraffe to the cow, because this is the reference ruminant for veterinary anatomy, well studied both in our country and on an international level.

Results and Conclusion
The main differences, underlining biomechanical consequences, were registered in the thoracic, lumbar, sacral segments and in the sternum. The giraffe has an extra thoracic vertebra and an extra pair of ribs, but it has a smaller thoracic length ratio to the total body length. The lumbar and sacral segments each lack a vertebra. The sternum is narrow. The dorsal profile of the trunk has a more pronounced decline in height from the whithers to the lumbar segment, and its general shape is dorso-ventrally narrowed to its extremities, making it more compact than in bovines.

ANATOMOHISTOLOGICAL STUDY REGARDING THE OVARY AND OVIDUCT IN DIFFERENT AGE GROUPS IN THE CHICKEN (*GALLUS DOMESTICUS*)

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Introduction

The importance of the study of the chicken's genital apparatus coincides from an economical point of view with the acquirement of one of the main avian products for which this bird is selected: the egg. In birds only the left ovary and oviduct are developed. The mature ovary has a grape-like shape, suspended form the ceiling of the abdominal cavity, immediately under the cranial extremity of the kidneys. The oviduct is long and flexuous, leading from the ovary to the cloacae.

Material and Methods

The research was carried out on the ovaries and oviducts harvested from 15 chickens of various ages (56 to 126 days) that were dissected using common techniques in the Comparative Anatomy Laboratory of the FVM Cluj-Napoca. The samples were also histolgically prepared and examinated using regular optical microscopy.

Results and Conclusion

Following the examiantions, the have noticed that in the first group age, the ovary has a smooth surface, at 98 days, its surface becomes uneven, while at 126 days, it completes its developpment, aquiring its calssical grape-like shape. The 56 days and 98 days old oviduct cannot be divided into segments; only the 126 days old oviducts displayes macro and microscopical segmentation. In conclusion, results indicate that the ovary and oviduct of chickens reach maturity at the ages of 126 days, when the birds becomes ready to produce eggs.

MOLECULAR PROFILING OF SCRAPIE CASES IN ROMANIA IN 2011

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Introduction

Scrapie, transmissible spongiform encephalopathy of sheep and goats is known for over 250 years, it was reported and diagnosed in almost all countries in the world. Only New Zealand and Australia are free from this disease.

In Romania, the prion disease was first diagnosed in 2002 at the Institute for Diagnosis and Animal Health, National Reference Laboratory for Transmissible Spongiform Encephalopathy, the paper being presented the methods used, results of investigations of disease outbreaks and the number of sheep diagnosed with scrapie and confirmed.

Materials and methods

In this research paper were studied a total of 76 sheep with scrapie diagnosed in 2011. The biological material was represented by fragments of the brain (brainstem and cerebellum) respecting such methodology stipulated in current regulations on these diseases.

Results and Conclusion

After conducting tests for the differentiation of TSE strains in Romania, was not diagnosed BSE or atypical scrapie in sheep and goats. Molecular profiling was representative for classical scrapie with diglycosylated band, monoglycosylated band and unglycosylated band with variations in signal strength of PrP^{res} bands and antibody reactions – different sensitivities to proteinase K.

THE INFLUENCE OF MICROBIAL IMMUNOSUPRESIVE AGENTS (PRRS, Circovirus, MYCOPLASMA) ON THE EFFECTIVNESS OF IMMUNOPROPHYLAXIS PROGRAMS APPLIED IN BREEDING PIGS (PRELIMINARY RESULTS)

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Introduction

Some pathogens are known to have immunosuppressive activity in pig populations. They can cause weakening of the body's defense capacity leading to increased risk of developing and evolution of serious diseases. Thus, some pathogens (PRRS, Porcine circovirus, Mycoplasma) are known to negatively modulate the immune system, significantly interfering with the effectiveness of any vaccination protocol. These data lead to the need of knowing the immunosuppressive agents implications on the effectiveness of immunoprophylaxis programs applied in breeding pigs. The work aim is to obtain data useful for the development and implementation of effective prevention methods in order to limit economic losses and to increase the food safety and quality.

Materials and Methods

The investigations were made regarding the presence and distribution of circulating immunosuppressive pathogens encountered in swine populations in Romania, by age groups, in different size farms with intensive system and households. The presence of the immunosuppressive agents in the pig's populations was evidenced using the ELISA diagnostic kits for antibodies detection against PRRS, Circovirus and Mycoplasma hyopneumoniae. The detection of the antibodies was also performed after erysipelas vaccination program in order to determine a possible influence of mentioned germs on the immune response after vaccination. This vaccination was taken as a reference since it is a provided and executed action in swine farm current technology. Following necropsy, bacteriological examinations of organs damaged (lungs, lymph nodes, liver, spleen and intestine) were performed.

Results and Conclusion

Preliminary results showed that there is a possible influence of studied immunosuppressive microbial agents including the association germs on the effectiveness of immunoprophylaxis programs applied in breeding pigs.

ASPECTS OF LYMPH NODESCYTOMORPHOLOGYON HORSES - THE BEGINNING CELL IMAGING OF NON-SPECIFIC LIMPH NODES PROLIFERATIONS -

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Introduction
Pathological processes of lymph nodes are found quite frequently in human and animal pathology, so typing lymph node cell imaging have a significant importance, with anamnesis and clinical examination we obtain the certainty diagnosis.

Materials and Methods
We are studied the cytomorphological imaging of marrow, peripheral blood and lymph nodes of external and/or internal on 10 cases of slaughtered horses.
The morphocytological investigation of smears was performed using panoptic staining (May-Grunwald Giemsa).

Results
The results allowed the identification of three groups of animals with different cells imaging, as follows:
- the status of these investigated territories was for 3animals and corresponded to a macroscopic anatomo-clinical examination as quasinormal;
- the status of lymph node irritation, so-called stage0,of a global proliferation to lymph node cell populations was identified in 3cases;
- the status of massive limfoproliferation (stage 1-2), was found in 4 cases. These cases are characterized by:
- massive lymphocytic blast with a predominance of "B" lymphocytes
- the presence of a high number of mast cells
- reticular cells proliferation
- increased quantitative dendritic cells (spindle and globular).

Conclusions
The importance of this study result from irritating status with a high diversity of etiology in lymph territory,can be finished with the *restitution ad integrum* of cellular structures,or if the irritation persist the 1-2stage will turn in stage3-4,which means that a reactive limforeticulosis can be transformed in a malignant reticulosis or a malignant non-Hodgkin's lymphoma or Hodgkin's malignant lymphoma.

THE STUDY OF THE "LYMPH IRRITATION SYNDROME" COMPARED TO CATTLES AND PIGS

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Introduction

The lymphatic system is an important component of the immune system. Lymph is filtered through the lymph node sinuses, where the particulates and infectious organisms are detected and removed. Because of the exposure to immune challenges, antibody and cell-mediated immunity is mediated. As a result of such normal processes, the lymph nodes can enlarge by proliferation of normal cells or infiltration by abnormal cells.

Materials and Methods

In this study were investigated 17 cases ,7cattles and 10 pigs, were slaughtered for meat marketing. We examined all major lymph node chains, both external and internal.On this occasion have identified various enlargement of these structures with various aspects of their macroscopic performed on longitudinal section. Were practiced smears of lymph juices and staining them using panoptic technique (May-Grunwald Giemsa). Simultaneously we made peripheral blood and bone marrow smears.

Results

The cytomorphological investigation has revealed a massive proliferation of primordial lymphoid cells with an intense proliferation of support-reticular cells. In some cases, lymph node structure consisted mainly of plasmocitoid and plasma cells.

Conclusion

From17 cases, a total of 13animals (9 pigs and 4cattles) wasn't present visceral lesions that could cause such responses lymph node, so we can discuss this like a"lymph irritation syndrome" present in both species of animals is due solely to potentially carcinogenic chemicals that are present in specific feeding of these animals.

TISSUE RESPONSE AFTER SUBCUTANEOUS IMPLANTATION OF COLLAGEN MATRIX EMBEDDING LIPID NANOSTRUCTURES FOR MEDICAL USE

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Introduction

The biocompatibility of a biomaterial has to be tested by foreign body reaction assessment on animal models. In this study, we observed the tissue response after implantation of lipid nanostructures embedded in a collagen porous matrix, developed for local treatment of osteoarthritis.

Materials and Methods

Rats received subcutaneous implants on the back and were sacrificed after 5 days and 2 weeks. Harvested tissues were processed for histopathological and electron microscopy evaluation and immunohistochemical staining of interleukin-1β. Matrix metalloproteinases production was investigated by gelatin-zymography.

Results

At 5 days after implantation, a granulation tissue with neutrophils and monocytes formed around the implant, indicating an acute inflammatory phase. At 2 weeks after implantation, a chronic inflammatory reaction characterized by formation of giant cells was observed and many cells penetrated inside the matrix. The reaction for interleukin-1β was reduced after 2 weeks of implantation and was present mainly extracellular, around the macrophages and neutrophils. Implant's ultrastructure was homogeneous, with unordered collagen fibrils. The macrophages localized into the pores of the matrix at 5 days of implantation were replaced by giant cells after 2 weeks, indicating the degradation of the implant. Variation of matrix metalloproteinase-2 during implantation was registered.

In conclusion, our results suggested that the inflammatory cell mobilization was reduced after 2 weeks of implantation and the implant was well tolerated by the host tissue.

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COMPARATIVE SYUDIES ON MICROSCOPIC MORPHOLOGY OF THE SEMINIFEROUS TUBULES IN 90-180 DAYS OLD COCKS

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Introduction

From the age of 90 days is clear that an end point of pseudostratified seminal epithelium, but the cell types and Sertoli cells are still prevails spermatogoniums and take the other two age as described above

At the age of 180 days in the seminal epithelium are present all types of cells of the seminal line

Material and Methods

The researches were conducted on testes harvested from cock, race-variety white Leghorn, normally developed, clinically healthy, vaccinated, macroscopically and microscopically examined.

The inspection of histological preparations were made on permanent histology, processed by usual histological techniques and colored by hematoxylin-eozine method, Giemsa slow sections, Tanzer-Unna and P.A.S histochemical techniques.

Results and Conclusion

In specimens aged 90 days semen is pseudo stratified epithelium, Sertoli cells and spermatogonia cells are predominant. There is a very intense positive PAS reaction in the basement membrane of the seminiferous tubules.

From the age of 180 days in seminal epithelium are present all cell types of the seminal line. Basement membrane of the seminiferous tubules is evident and intertubular connective tissue is PAS positive.

Sertoli cells are active from mitotic point of view and contain large amounts of rough endoplasmic reticulum and produce antiparamesonephrotic hormone.

As spermatogonia, Sertoli cells are among the most resistant cells and germinal epithelium remain predominant cell type in aging gonads.

Spermatogonia A has an ovoid nucleus with prominent nucleoli and has a large area of contact with the basal lamina. Type B spermatogonia is a spherical cell with spherical nucleus and nucleolus less prominent. Of mitotic division of spermatogonia B are form the primary spermatocytes. These are the largest cells of the seminal line located in an intermediate position between spermatogonia and spermatida, their nucleus are large and round, with obvious nucleolus. They gradually lose contact with the basal lamina and moving adluminal compartment through intercellular junctions of Sertoli cells.

RESEARCH ON HISTOSTRUCTURA ANTIGENICALLY STIMULATED LUNG IN BIRDS

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Introduction

Respiratory mucosa are continuously exposed to antigenic aggression and play a major role in the immune response that is developed avian body. Respiratory mucosa associated lymphoid formations studys formations belonging to the respiratory mucosal immune system of BALT lymphoma was performed by presenting some details of the normal issues that may serve as a guide in identifying and inventorying respiratory lesions.

Materials and Methods

Research has been lungs from poultry, control or stimulated antigen, normally developed, clinically healthy.

For this purpose an experiment was initiated which included 3 groups of birds from breeding industrial environments.

Fragments collected were processed as usual histological techniques and stained with Goldner methods - Szekelly, Mucicarmin Mayer, trichrome Gomorrah, orceina stain, Alcian Blue.

Results and Conclusion

Gas exchange in birds is carried out at the level of the fine branches of intrapulmonary bronchi that are tertiary bronchi, atria, air clogs and air capillaries both during inspiration and during expiration.

Respiratory mucosal lymphoid tissue occurred during evolution immune defense as a way to inhibit colonization and invasion of the respiratory mucosa by specific and nonspecific immune mechanisms. They act as a local protective immune relatively independent of the systemic.

It is demonstrated that nasal administration of antigens or bronchial aerosol regional causes an immune response in the airways.

Application level of antigen influences the type of immune response. In the literature stated that nasal administration limited to be answered purely local, while aerosol administration of antigens stimulating reach the pulmonary alveoli and a systemic response.

ADAPTIVE HYPERTROPHY OF THE RIGHT VENTRICLE IN CHRONIC PULMONARY HEART

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Introduction

Common causes of chronic pulmonary heart (CPH) in dogs are: chronic lung disease, infestation by *Dirofilaria immitis*, and anatomical and functional predispositions brachycephalism races. Whatever the cause, the result is the same, pulmonary arterial hypertension (PAH). As long as PAH is moderate (30 mmHg), or appears only at significant effort, CPH is balanced and remains undiagnosed in the absence of laboratory tests, only respiratory failure.

The aim was to identify the adaptive changes of the right ventricule, in CPH.

Materials and Methods

The study was conducted on a total of 10 dogs breeds Chihuahua, Maltese, Pekingese, aged 2-15 years, with manifestations of respiratory failure: tachypnea, dyspnea, coughing, cyanosis, fatigue, syncope of physical effort. Pulse oximeter was used to establish the degree of oxygen saturation of hemoglobin.

They used a veterinary ECG VE 100 and Mindray ultrasound, HB-2200Vet. Relevant indicators were: diastolic and systolic diameters of right ventricle, right ventricle free wall thickness in systole and diastole, septal thickness in systole and diastole, right ventricular sphericity index, systolic interventricular septum motion by left ventricular shortening fraction, ejection fraction.

Results and Conclusion

Pulmonary clinical signs were accompanied by a decrease below 90% of SO2. ECG showed: right axial deviation, pulmonary P wave, deep S wave in DII and aVF, microvoltage. Mean blood pressure was 165/10 mmHg. Echocardiography were recorded: a moderate increase in diastolic and systolic diameters of the right ventricle, thinning of the right ventricular free wall apparent; septal hypertrophy leading to an over-unit value index of right ventricular sphericity; normokinesis; shortening fraction increased by 4%; ejection fraction remained unchanged from normal. Moderate PAH, right ventricular overload presion led to its adaptive hypertrophy to maintain steadily cardiac output.

ENZYME OUTPUT CAPACITY OF THE RABBIT EXOCRINE PANCREAS TO ADAPT DIFFERENTLY TO FOOD SUBSTRATE CONCENTRATION CHANGES

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Introduction

The aim of our work is to find the rabbit pancreas ability to change flow ratio of different digestive enzymes in the secreted juice depending to the composition of diet.

Material and methods

Three groups of adult rabbits were fed for 35 days with high starch diet (high starch group, HSG), high protein diet (high protein group, HPG), or high fat diet (high fat group, HFG) compared with a control group (CG) fed with a specific diet. Then pancreatic juice was collected and measured in acute experiments, in two variants of secretion: basal and stimulated by secretin. Pancreatic juice samples were analyzed for protein content and amylase, trypsin and lipase activities.

Results

Basal values of juice flow showed no significant differences between any experimental fed group vs. CG ($P>0.05$). Secretin stimulated juice flows were increased in all the groups, but the increase was significant higher only in HSG vs. CG ($P<0.05$). Basal protein flows of experimental fed groups did not differ significantly vs. CG ($P>0.05$). In contrast, the stimulated protein output was significant higher in HSG vs. CG ($P<0.05$). Amylase activities were significant higher in HSG vs. CG, both in basal (144.3×10^3 and, respectively, 52.0×10^3 amylase units (AU), $P<0.001$) and in the stimulated pancreatic juice (422.0×10^3 and, respectively, 162.1×10^3 AU, $P<0.001$). Moreover, the activities of trypsin and lipase in HSG did not differ significantly vs. CG ($P>0.05$), nor for basal neither for stimulated juice. Trypsin activity (in nmols benzoyl-argynil-ethyl-ester decomposed / 10 min / kg b.w.) increased significantly in HPG vs. CG, both in basal (62.5 vs. 22.2, $P<0.01$) and in stimulated juices (166.0 vs. 31.5, $P<0.001$). On the other hand, amylase and lipase activities of HPG group were similar to those of CG. Basal lipase activity (in mequivalents of liberated oleic acid per mg protein per h, 37°C) was higher in HFG vs. CG (122.4 and 86.5, respectively). In the stimulated juice, lipase activity increased to 246.0 in HFG and 184.1 in CG, but no significant differences were found in HFG vs. CG nor for lipase neither for amylase and trypsin ($P>0.05$).

Conclusion

Higher starch, protein or fat diets do not alter specifically the basal or the stimulated pancreatic juice volume flow, or protein output in rabbits. In contrast, pancreatic enzyme output adapts differently to food substrate concentration

changes for starch, protein or fat. Further researches could find the velocity of adaptation of pancreatic exocrine secretion to changes in substrate levels and to what degree the pancreas can respond adequately to increased supply of various substrate levels.

PLASMA CORTISOL LEVEL AND MAIN METABOLISM EVOLUTION IN PREGNANT EWE

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Introduction

The purpose of this research was to determine the relationship between glucocorticoid hormones in enhancing metabolic processes of gestation in ewe.

Material and methods

A group of pregnant ewes was monitored in terms of evolution of plasma cortisol and metabolism during a period of about 14 weeks from the time of pregnancy diagnosis. Parallel determinations were made in a control group consisting of non pregnant ewes. It was determined the evolution of plasma cortisol, plasma glucose, triglycerides, cholesterol, proteins, urea, uric acid, fibrinogen, creatinine, amylase, calcium and phosphorus.

Results

Mean plasma cortisol were located at around 4.45 ng / mL in the control group and 4.39 ng / mL in the experimental group ($P>0.05$) at the moment of pregnancy diagnosis, growing to 780 vs. 655 ng/mL in control ($P<0.001$), 14 weeks later. Blood glucose values ranged between 112 - 145 mg / dL in pregnant vs. 43 - 98 mg/dL in control ewes. Plasma lipid levels ranged between 300 and 454 mg / dL of plasma in pregnant ewes and 124 and 152 in barren ewes. Plasma total protein values in pregnant ewes varied between 113 and 165 vs. 68 and 100 mg / dL in control ($P <0.01$). In pregnant ewes, the values of the urea and uric acid concentrations were above the physiological limits: 35 mg / dL urea and 0.1 - 2 mg / dL uric acid. Calcium concentration in non-pregnant ewes ranged from 3.8 and 4.9 mg / dL vs. 6.5 to 8.8 mg / dL in pregnant ewes. Ca / P ratio was between 1.5 and 2.6 in barren ewes and between 1.8 and 2.8 in non-pregnant ewes. Plasma fibrinogen, creatinine and amylase activity in pregnant ewes were not found significant different ($P>0.05$) compared to the group of barren ewes.

Conclusion

During the period of gestation in sheep, progressively increasing plasma cortisol occurs, which indicates involvement of this hormone in the regulation of metabolic processes, exacerbated by the physiological state of pregnancy. Intensification of metabolic processes such as protein, lipids, carbohydrate, calcium and phosphorus metabolisms during pregnancy may be at least in part attributed to increased secretion of cortisol.

MODULATION OF STEM CELLS ADHESION BY PLANT LECTINS

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Introduction
Since their initial description, approximately a decade ago, endothelial progenitor cells (EPCs) have raised great enthusiasm given their therapeutic promises in cardivascular diseases. A major problem for *in vivo* studies is homing of EPCs after systemic/local delivery in animal models of cardiovascular disorders due to the fact that a significant amount of these cells are lost while crossing the systemic circulation, and only a small fraction can reach the injured endothelium. The aim of this study was to stimulate EPCs with lectin isolated from *Solanum tuberosum* (*potato*) *shoot* and *Calendula officinalis* (*marigold*) extracts, in order to increase EPCs proliferation and expression of molecules with roles in chemotaxis and adhesion for a better attachment to injured vascular tissue.

Materials and Methods
EPCs were differentiated from umbilical cord blood-derived mononuclear cells. Cell proliferation was determined by MTS assay, and gene expression of molecules involved in EPCs adhesion (VCAM-1, VE-cadherin, ICAM-1, PECAM-1, P-selectin) and chemotaxis (CXCR4, Tie-2) was determined by Revers Ttranscription-PCR. For assessment of cell motility wound-healing assay was employed**.**

Results
Lectin from *potato shoot* and *marigold* extracts showed the capacity to stimulate EPCs proliferation and motility in an dose-dependent manner and modulate expression of molecules involved in chemotaxis and adhesion. EPCs exposure to *marigold flower* extract resulted in an increase expression of all adhesion and chemotactic molecules while *marigold green plant* and *potato shoot* lectin stimulate expression only of VCAM-1, VE-caderin and ICAM-1.

Conclusion. These insights would circumvent the problems of insufficient cell number and low efficiency of EPCs incorporation contributing to the improvement of stem cell-based therapy.

STUDY REGARDING THE CORTROSYN-DEPOT EFFECTS IN LACTATING EWES

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Introduction

The literature indicates a positive correlation between maternal behavior in sheep, milk production and administration of the ACTH hormone (Cortrosyn Depot as commercial product) involved in various metabolic processes (specific actions the ACTH hormone on the mammary gland in stimulating the lactopoesis.

Material and Methods

Cortrosyn-Depot (ACTH) was series administered in sheep, from the first day after birth until day 15 of lactation, in dose of 1 mg. Lambs from the control and experimental groups were weighed on days 1, 10 and 21 days after calving, calculating finally batch weaning weight and average daily gain/lamb/group.

Results

In lactating ewes from experimental and control groups, we determined indirectly the maternal behavior, by establishing the average weight of lambs at birth, 21 days and at weaning, (the lambs` weight is correlated with the milk production of the sheep, as better maternal behavior expression).

The lambs weight from experimental and control groups, after calculating the average weight of lambs groups at birth and at weaning and the daily gain/ lamb, shows changes with statistical significance in some cases.

Conclusions

Comparative analysis of average weight/group at weaning (18.4 kg) and average daily gain for the entire period of lactation (245 g/day), shows that in lambs from the experimental group, these parameters were significantly higher ($p<0.05$) than lambs from the control group (16.7 kg, respectively, 200 g/day).

The administration of Cortrosyn Depot in ewes induced a significant increasing of serum biochemical parameters ewes from experimental group (albumin, total lipids and triglycerides) with no major influence on the physiological balance of the animals.

Cortrosyn Depot administration in sheep from experimental group, is a clear demonstration of the lactogenic role of the ACTH in this species and in the requirement that maternal behavior.

OBSERVATION REGARDING THE BROMOCRIPTINE EFFECTS OF HORMONAL AND BIOCHEMICAL PROFILES IN PREGNANT AND LACTATING EWES

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Introduction

The prolactin, regardless of species, acting on the central nervous system, inducing and maintaining maternal behavior. In approaching the role of prolactin in the induction and maintenance of maternal behavior can be used used antiprolactinic drugs (e.g. Bromocriptine).

Material and Methods

The sheep from this experiment belonged to the Merino breed, at third calving, in the same month. To assess the antiprolactinic effects on maternal behavior, the bromocriptine was administered in doses of 1 mg - 2.2 mg/animal/day, from 4 days before birth up to 3 days after birth, looking for its effects on weight gain in lambs and also on the main biochemical blood constituents.

Results

In correlation with the hormonal dosages, this research revealed the biochemical changes in pregnant and lactating ewes. These highlight the inhibitory and constant action of bromocriptine on pituitary prolactin secretion, secretion which ultimately will change the maternal behavior of sheep in the experimental group.

Conclusions

The obtained results shows a highly significantly decrease ($p < 0.01$) of the average value of prolactin (29 ng/ml) in sheep from the experimental group (treated with the antiprolactinic product-Bromocriptine). Highly decrease significantly of serum prolactin levels in sheep treated with bromocriptine, shows the constant inhibitory action of Bromocriptine on the LTH - pituitary secretion, which ultimately led to the treated sheep, much weaker expression of maternal behavioral manifestations during lactation. Comparing the average values of total protein, were slightly higher in the experimental group (8.0 g/dl) than the control group (7.6 g/dl), difference statistically insignificant ($p > 0.05$).

Bromocriptine treatment of sheep in the experimental group did not affect other biochemical parameters, close to the average values of the control group (statistically insignificant).

The experiment demonstrates the lactogen role of prolactin in sheep and maternal behavior in conditioning the default.

MONITORING OF HEAMATOLOGICAL INDICES IN A SAMPLE GROUP OF CATS SUBJECTED TO SERIAL BLOOD COLLECTIONS FOR BIOEQUIVALENCE TESTING

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Introduction

The bioequivalence evaluation of a drug is based on the bioavailability of its active molecule. Serial blood sampling might be limited in cats, due to their reduced blood volume and other morphophysiological characteristics that will be analyzed in this study.

Materials and Methods

The bioequivalence testing of an antihelmintic product was conducted on 37 common breed cats, between 2 to 4 kg, fed with dry and canned food. The testing protocol consisted of two phases, 14 days apart. Eleven blood samples were collected at increasing time periods (0-24h). The total blood volume collected in each stage was evaluated based on the volemia, estimated at 7.5% from the total body weight, representing a maximum of 13 ml/kg and 2,2 ml for each sample. Along with the serial blood sampling, at the start and ending of the two phases, haematological evaluations (on EDTA) and biochemical profiles (on Li-Heparin) were performed. Addtionally, morphological assessments were carried out on panoptic stained smears.

Results and Conclusions

No major alterations of the physiological parameters were recorded, except for a small decline in the erythrocitary parameters, associated with oscillations of the total white blood cell count and a tendency to monocytosis.

The results of this study reveal the necessity to associate physiological parameters of the tested animals with the requirements of drugs bioequivalence testing protocols, in order to respect ethical and good practice standards while collecting multiple blood samples.

COMPARATIVE PHENOTYPIC ASSESSMENT OF PALATAL SUBEPITHELIAL CONNECTIVE TISSUE ISOLATED FROM DOG AND HUMAN

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Introduction

Stem cells isolated from various tissues can self-renew and produce different cell types. Oral cavity may be a valuable source of mesenchymal stem cells (MSCs) that can be isolated and expanded *in vitro*, providing a unique reservoir of stem cells from accessible tissue resources. The aim of this study was to isolate and assess the multipotent characteristics of MSCs dog and human in order to cover gingival recessions in future with these cells.

Materials and Methods

Human and dog MSCs were obtained from palatal subepithelial connective tissue, expanded and cultured in DMEM/F12 culture medium supplemented with 10% fetal calf serum (FCS) and antibiotics. The cell surface phenotype of the presumed palatal MSCs was characterized at the 4th passage. All flow cytometry measurements were made using a FACS Canto II flow cytometry system (BD Biosciences, San Jose, CA, USA) and analysed using the DIVA program.

Results and Conclusions

Our data confirmed that the isolated and cultivated dog and human MSCs cells have multipotent character based on specific surface antigen expressing (CD44, CD34/45, CD29).

ANTIOXIDANT ACTIVITY OF SEA BUCKTHORN ETHANOLIC EXTRACTS UPON VEGETAL OILS UNDER THERMAL OXIDATION

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Introduction

Oxygen-dependent deterioration of lipids has been noticed since antiquity as a major problem in oils storage. In this study, there were investigated the content in polyphenols and the ability of alcoholic extracts obtained from *Hippophae rhamnoides* (sea buckthorn) fruits to act as antioxidants in thermal oxidation process of some vegetal oils.

Materials and Methods

The experiments were carried on sunflower oil, soy oil, olive oil and maize germs oil. The oxidative stability of oils added with antioxidants from sea buckthorn was determined during storage for 6 days at 65ºC. Peroxide values, free fatty acids assay and formation of malondialdehyde were performed in order to estimate the oxidation process.

Results

The content in polyphenols of the sea buckthorn alcoholic extract was estimated at 24.34 ± 0.06 mg / 100 ml equivalent in tannic acid. Sea buckthorn ethanolic extract inhibited peroxide formation process in the studied oils only during the first 4 days of incubation. The strongest antioxidant activity was noticed in case of soy oil and sunflower oil. After 4 days, in the presence of sea buckthorn extract, the carboxyl groups formation process was strongly inhibited in soy oil. In case of the other oils, the inhibition of carboxyl groups formation process was significantly lower. Malondialdehyde formation was inhibited in all the studied oils; this process was strongly inhibited in the case of olive oil and soy oil.

Conclusion

Sea buckthorn alcoholic extract has the capacity to inhibit in certain limits the autoxidation process of maize oil, sunflower oil, soy oil and olive oil. The highest antioxidant activity of sea buckthorn extract manifested upon soy oil.

ANTISTRESS ACTIVITY OF A *HYPERICUM PERFORATUM* HYDROETHANOLIC EXTRACT IN MICE

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Introduction
Hypericum perforatum (St. John's wort) is a highly valued plant reported to have various biological activities. In this experiment there were used all aerial parts of the plant, consisting in stems, leaves, flowers and seeds.
Materials and Methods
Considering the antioxidant properties of *Hypericum perforatum*, the present study was conducted to investigate the effects of a hydroethanolic extract on induced stress in albino mice. Lipid peroxidation (LPO) and antioxidant enzymes superoxide dismutase (SOD), glutathione peroxidase (GPx) and catalase (CAT) were evaluated to determine the protective and antioxidant activity of St. John's wort extract in stressed mice.
Results
The results showed that induced stress increases LPO (149.02 %) and decreases the level of antioxidant enzymes (SOD -47.82 %, GPx -66.66 % and CAT -64.70 %). *Hypericum perforatum* extract significantly restored the antioxidant enzymes level and exhibited significant protective effect in the liver, which can be mainly attributed to the antioxidant property of the extract.
Conclusion
St. John's wort (*Hypericum perforatum*) polyphenols improved enzymatic and nonenzymatic markers in stressed mice liver homogenates compared to untreated stressed mice.

THE EFFECT OF AN ETHANOLIC EXTRACT OF NETTLE (*URTICA DIOICA*) ON OXIDATIVE STRESS IN MICE

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Introduction
Currently, the importance of oxidative stress in the pathophysiology of many disorders has been highlighted. This study was undertaken to evaluate the antioxidative potential of an ethanolic extract obtained from nettle (*Urtica dioica*) in stressed mice.

Materials and Methods
In this present study, mice were divided into four groups containing five mice each. Group I (not-stressed mice) were orally administered 0.9% NaCl solution (positive control group). Group II (not-stressed mice) were administered the extract of *Urtica dioica*. Group III (stressed mice) were orally administered a 0.9% NaCl solution (negative control group). Group IV (stressed mice) were administered nettle extract.

Results
The activity of antioxidant enzymes (U/mg of protein) catalase (CAT), superoxide dismutase (SOD) and glutathione peroxidase (GPx) were found to be significantly higher in nettle-treated stressed mice compared to the negative control mice. SOD activity in the liver tissue of group IV was found to be significantly increased as compared to group III ($P < 0.01$), while liver CAT activity in group IV significantly increased as compared to group III ($P < 0.001$). The levels of reduced glutathione (nonenzymic antioxidant) in nettle-treated stressed mice was found to be significantly higher than in control mice (58.60 %).

Conclusion
These results suggest that nettle (*Urtica dioica*) has a very good antioxidant and hepatoprotective effect, thus the use of this plant in oxidative stress is highly recommended.

NUTRITIONAL AND METABOLIC PARAMETERS IN LAYING HENS FED WITH DIFFERENT LEVELS OF CALCIUM, PHOSPHORUS AND PHYTASES

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Introduction

Food standards for P at laying hens decreased up to 0.25% (NRC 1994) but it was experimentally shown that the level of P can decrease up to 0.11% Npp associated with food supplementation with phytase. Aim of this study was to determine P digestibility and its metabolic utilization at hens fed with different levels of Ca and P.

Material and methods

The experiment was made on six Lohmann-Brown classic hybrid hens kept in individual battery cages (0.24 m^2/hen) aged 32 to 42 weeks which were fed after a 7 days accommodation period successively with five feed recipes having different levels of calcium, total phosphorus (Pt), phytic phosphorus (mPP and phosphorus available for absorption (aP). Recipes NC1 (3.5% Ca, 0.75% Pt, and 0.37% aP) and NC2 (4.18%Ca, 0.76% pt and 0.46% aP) are commercial recipes containing phytases (1000 TFU Natufos at NC1 and 300 TFU Phyzyme at NC2). The experimental recipes NC3 (3.43% Ca, 0.36% Pt, 0.12mPP and Phyzyme 500 TFU), NC4 (3.43% Ca, 0.5% Pt, 0.25% MPP and no phytase) and NC5 (3.43% Ca, 0.5% Pt and 0.25% mPP) were differentiated by not including the phosphate supplement in the NC3, by using sodium phosphate (with biological value 100%) in NC4 and by using mono calcium phosphate in NC5. There were determined the digestibility of calcium and real available phosphorus and the plasmatic levels of Ca, P and alkaline phosphatase right after laying.

Results and conclusions

There was observed that in NC3 the decrease of the average daily intake was not statistically significant, the supplementation of the feed with Phyzyme rose the value of the aP to 0.30%. The biological value of mPP and of the phosphorus released from phytates by using 500 TFU Phyzyme was of 91.19% of the biological value of the phosphorus from monosodium phosphate. The serum phosphorus levels in NC3 were not statistically significant different compared to NC4. The serum levels of alkaline phosphatase was not statistically significant different between the tested recipes. Between the serum Ca levels and alkaline phosphatase levels there is a statistically significant negative correlation in NC4 (R=-0.831); between the alkaline phosphatase and the phosphorus levels in the egg shell there is a positive statistically significant correlation (r=0.871). In feed recipes based on corn and soy meal, and no added phosphates, containing 0.12% mPP the

supplementation with 500 TFU Phyzyme releases the phosphorus from phytates up to 0.30% aP, ensuring the requirements (NRC, 1994) for available phosphorus in feed.

THE QUALITY OF EGG SHELLS FROM LAYING HENS FED WITH DIFFERENT LEVELS OF CALCIUM, PHOSPHORUS AND PHYTASES

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Introduction

Unjustified supplementation with Ca and P of the laying hens food for obtaining the certainty of egg shell resistance determines significant economic losses and unjustified increase in the level of environmental pollution with phosphorus. This paper has proposed testing minimum levels of Ca and P that mantain egg shell quality by reducing the levels of added P and phytase supplementation.

Material and methods

The experiment was made on six Lohmann-Brown classic hybrid hens kept in individual battery cages (0.24 m^2/hen) aged 32 to 42 weeks which were fed after a 7 days accommodation period successively with five feed recipes having different levels of calcium, total phosphorus (Pt), phytic phosphorus (mPP and phosphorus available for absorption (aP). Recipes NC1 (3.5% Ca, 0.75%Pt, and 0.37% aP) and NC2 (4.18%Ca, 0.76% pt and 0.46% aP) are commercial recipes containing phytases (1000 TFU Natufos at NC1 and 300 TFU Phyzyme at NC2). The experimental recipes NC3 (3.43% Ca, 0.36% Pt, 0.12mPP and Phyzyme 500 TFU), NC4 (3.43% Ca, 0.5% Pt, 0.25% MPP and no phytase) and NC5 (3.43% Ca, 0.5% Pt and 0.25% mPP) were differentiated by not including the phosphate supplement in the NC3, by using sodium phosphate (with biological value 100%) in NC4 and by using mono calcium phosphate in NC5. There was determined the effect of the calcium and phosphorus levels in feed on the egg production and on the egg shell quality.

Results and conclusions

The laying percent was 100% for all the hens during the experimental period. There were no statistically significant differences between the hens' weights. The lowest specific feed intake was recorded for NC 5 (1.62 kg/kg egg) and for NC 3 (1.64kg/kg egg) The percent of the egg shell out of total egg mass was significantly lower for NC1 compared to NC4. The egg shell quality expressed as the shell density was not influenced by the aP in the feed. The biological value of the aP in NC3 was of 91.19% of the biological value of the monosodium phosphate. The Ca and P content of the shells in NC3 were not statistically significant different compared to NC4 and NC5.

The material nutritional balance of calcium in NC3, NC4 and NC5 having the same Ca proportion in the feed (3.43%Ca) shows the phosphorus level influences the absorbed calcium. The tissue calcium reserve was lower for NC3. The phosphorus

balance shows that the phosphorus from the shell lowers up to 20% for NC3 compared to NC4 and NC5. There was recorded a negative correlation between the serum and egg shell phosphorus levels for NC3 (r=0.763) below the statistical significance threshold (r=0.811).

QUANTUM DOTS INDUCE MODIFICATION ON HSPs EXPRESSIONS IN LIVER AND KIDNEY OF *CYPRINUS CARPIO*

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Introduction. Quantum dots (QDs) are useful for biomedical imaging, but could also induce injurious effects. Hsp proteins are associated with apoptotic signaling and defense against stress. We investigated the effects induced in Hsp60 and 90 expression at transcriptional and translational levels by Si/SiO_2 QDs in liver and kidney of *Cyprinus carpio.*
Materials and Methods. Fish groups were IP injected with 0.7% NaCl (control) or with 2mg QDs/kg body weight (experimental). The mRNA expression of Hsp60 and Hsp90 was evaluated by qPCR and the protein expression by Western blot.
Results. After 1, 2 and 3 weeks of QDs exposure, the relative expression ratios (R) of Hsp60 in liver were 0.45, 0.65 and 0.72, respectively 0.23, 0.42 and 1.03 for Hsp90. In kidney, R values of Hsp90 were 0.31, 0.74 and 1.0 after 1, 2 respectively 3 weeks. The only upregulated protein was Hsp60 with the highest R value 3.8 after 1 week, and afterwards Hsp60 recovered to controls level. Similar modifications were observed by Western blot.
Conclusions. QDs exposure induced the decline of Hsp60 and Hsp90 in liver at mRNA and protein level which may compromise cellular integrity making the cells vulnerable to apoptosis. Hsp60 is important in cellular protein homeostasis and turnover, the upregulation after 1 week in kidney may prevent the accumulation of damaged proteins that otherwise may trigger cell death. We show that QDs generate more adverse effects in hepatic tissue rather than in the kidney, where we noticed an adaptative response of Hsp60.

STUDIES ON HISTOLOGICAL STRUCTURES OF THE ABDOMEN ON ADULT WORKER BEES (APIS MELLIFERA CARPATHICA)

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In an initial phase, the studies aimed possibilities of including chitinous anatomical segments by using different fixing solutions in order to produce chitin lysis to facilitate cutting them.

Various fixing solutions have been used (glacial acetic acid, Carnoy fixative, trichloroacetic acid, picric acid, acetone, absolute alcohol, Bouin's fixative, etc.) with variable terms in determining the degree of chitin lysis, which proved to be inefficient, the parts included being improper to sectioning (cutting friability and lack of integrity in tissue resulting from staining).

In a later stage, they proceeded to a careful dissection, under the microscope, of the anatomical organs of the abdominal cavity in order to dissociate the anatomical segments present at this level to prepare it for inclusion. Processing of samples was also performed under the microscope until their inclusion in paraffin.

Detailed histological examination of tissue and cellular structures, captures the structural aspects at a time. The parts collected were fixed in formol saline, were then prepared for inclusion in paraffin and then sectioned in series in order to capture the histological structure of organs in the abdominal cavity.

The serial sections revealed the histological structure of several organs located in the abdominal cavity. This positioning of organs in sections led to their identification, facilitating their microscopic interpretation.

ANATOMICAL AND RADIOLOGICAL STUDY OF PARTICULARITIES OF THE AUTOPODIUM IN HORSE AND PONY

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Introduction

The carpal bones, at pony in generally, have the shape similar to those of the horses. However, there is some flattening of carpal bones.

Matherials and Methods

The study material was represented by ten horse toracal autopodes and ten pony thoracic autopodes. Animals destined for dissection, demonstration and reasearch were used in the Domestic Animal Anatomy Laboratory from The Faculty of Veterinary Medicine.

Results

Research has shown that, in the ponies, carpal bones is more uniform that in the horse. The scapho-lunar conduct is wider than the horse. the metatarsal grove on the lateral side of carpal accesories bone has is into the orisontal side, compared to this of the horse. The lateral metacarpal bones in pony are relatively longer at the horse.

Conclusions

In the pony, the bones has morphological similarities to those of the horse. However, there are small differences that characterize this species.

PREVALENCE OF GASTROINTESTINAL PARASITES IN DOGS FROM TIMIŞ COUNTY AND THEIR RISK TO PUBLIC HEALTH

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The prevalence of gastrointestinal parasites in dogs was studied in Timiş County with special attention to those parasites that can be transmitted to human. The study was conducted during the period between octomber 2010 and octomber 2011 to determine the frequency of gastrointestinal helminths infections in dogs. From different localities a total of 253 faecal samples of dogs, pet and stray were evaluated for the presence of intestinal parasites. The prevalence of canine gastrointestinal helminths was investigated by coprological examination of faecal samples. The frequency of parasitized dogs was significantly higher, 194 (76.67%) samples were positive. The most frequently observed parasite was *Ancylostoma caninum* (47.82%) followed by *Trichocephalus vulpis* (21.73%), *Toxocara canis* (17.78%), *Uncinaria stenocephala* (13.43%), *Dipilidium caninum* (3.95%), *Strongiloides stercoralis* (1.97%), *Isospora canis* (1.18%) and *Toxascaris leonina* (0.79%). The habitat and location of it was also important for the presence of parasites. The high prevalence of gastro-intestinal helminth parasites of zoonotic potential registered in the dog population from Timiş County indicates a potential risk to human health.

RESEARCH ON THE HISTROSTRUCTURE OF THE GILLS OF THE HORSE MACKEREL

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Introduction

Because fish live in the water, their breath is different, both in terms of anatomical constitution of bodies and of their function, similar functions of vertebrates. Fish usually breathing is through gills. Thus, one side of the head fish are usually, 4 each gill arches that are caught by two or more rows of blades gill, depending on the species.

Materials and metods

In this paper, we propose to study the histological structure of the gills of the horse mackerel. To achieve this objective, we studied a total of 10 samples of fish of the species horse mackerel, which I submitted to histological processing. After removing opercula, we collected fragments of gills, they have set in neutral 10% formalin for at least 48 hours, were included in paraffin and were made serial sections of 4 microns in microtome technique; later, we stained histological staining methods of H&E and trichrome Masson amended (HEA).

Results and conclusion

A thorough examination of the gills for each hemi gills collected from horse mackerel shows that are made up of thin filaments arranged in row, primary fins that protrude from a similar gill arch tooth comb. From histologically, each gill comb consists of a slide cartilage or bone that support the multi-layered epithelium and connective/connection tissue.

CORRELATIONS BETWEEN THE ANTEBRACHIAL BONE MORPHOLOGY AND PRONATION AND SUPINATION MOVEMENT POSSIBILITIES IN DOMESTIC MAMMALS AND HUMANS

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Introduction

Depending on the species, the forearm bones have a different topography and development being correlated with the ways of using the arm. When they are mobile they can rotate around each other in order to achieve pronation and supination movements. Otherwise, they coalesce, the radius being much more developed than the ulna. The study consisted in describing the articular surfaces' morphology in mammals, including the human and correlating the obtained data with the pronation and supination movements possibilities of the autopodium.

Matherials and Methods

Research was conducted on radius and ulna bone pieces from the bone collection of the Anatomy of Domestic Animals department within the Faculty of Veterinary Medicine, Bucharest. The constitutive elements of the articular surfaces were measured at their proximal and distal extremities same as the existing relations between the diaphyses of the two bones. Pictures were taken of the most representative aspects.

Results

Noticeable are the particularities of the radioulnar articulation in carnivores, animals that can perform the movement of supination unlike hoofed animals and leporids whose forearm bones are fixed in pronation position. Also, it was observed that compared to the species that have extended articular heads, in carnivores, the supination movement is possible. The amplitude of it is even larger with the shortening of the olecranon.

Conclusions

The forearm is the base of pronation and supination movements, responsible for the mobility of the autopodium. It was observed that these movements are dependent not only on the fusion degree of the two bones but also on the shape of the proximal articular surface of the radius and the height of the olecranon.

STUDY REGARDING METABOLIC PROFILE IN COWS BY AGE, GROWTH SYSTEM AND PHYSIOLOGICAL STATUS

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Introduction

Metabolic profile regards the evaluation of nutritional metabolic integrity in an animal effective by biochemical and hematologic analysis.The method is based on statistic interpretation of obtained data, compared to a set of values using a computer.These tests can be of real use in determination of nutritional or infectious imbalances occured previously as well as for anticipation of metabolic disturbances for the purpose of prevention.

Materials and Methods

The study shown here was carried out inside I.D.S.A. Bucarest on a number of 18 healthy cows raised in intesive system from different breeds: calfs between 1 to 3 months, young cows between 6 and 12 months, heifers between 12 and 18 months with the following investigations:erithron investigations and leucocytes series investigations.

Results and conclusions

At hematologic level a number of significant differences were noticed.In examining the erythrocite sysytem, comparing obtained results and their aassesment must be taken by individuals belonging not only to the same age but to the same breed.

HISTOSTRUCTURAL PARTICULARITIES OF THE SYRINGEAL WALL IN *PHASIANUS COLCHICUS*

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Introduction

The majority of researches concerning the syringeal wall are referring in the order *Galliformes* to the species *Gallus gallus domesticus*. The purpose of this study was to perform a histostructural and morphometrical analysis of the syrinx in pheasants.

Material and Methods

The study used birds belonging to the species *Phasianus colchicus colchicus*, all one year old males, from whom the pieces were collected and processed using conventional histological techniques, thus obtaining numerous seriated slides that were later on analyzed and photographed.

Results and Conclusions

The longitudinal sections show a pyramidal aspect of the *pessulus*, which has a hyaline cartilaginous structure and is covered by a pseudostratified ciliated columnar epithelium, that has many tubule-alveolar glands. The external and the internal tympanic membranes have similar structure. They are covered by thin epithelia and each of them presents a predominantly connective axis that is abundant in connective fibers but lacks in muscle cells. The *foramen interbronchiale* appears large and well defined. The medial wall of the primary bronchia is rich in glands, and the lateral ones are structured around the cartilaginous rings and they are lined by a thin respiratory epithelium. A discrete diffuse lymphoid cell infiltration was observed in the syringeal mucosa, especially in the bronchus origin area.

A COMPUTERIZED CELL MORPHOMETRY ANALYSIS OF ADIPOCYTES FROM THE MESENTERIC AND INGUINAL SUBCUTANEOUS ADIPOSE TISSUE ON OBESE MICE

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Introduction
Adipose tissue grows by volumetric increase of preexisting adipocytes, by generation of new small adipocytes or by both mecanisms. Adipocyte sizes correlate with increased serum insulin concentration, insulin resistance and risk of type 2 diabetes. Extensive research in human medicine highlighted the major role of adipose tissue in the pathogenesis of diabetes mellitus type 2 and cardiovascular diaseases.
The objective of this study was to investigate the differences between the size and the number of adipocytes according to the origins of body fat compartment.
Materials and methods
Samples from mesenteric and inguinal subcutaneous adipose tissue were collected from 10 obese NMRI mice. The obesity was induced at 1 month of age by feeding them a hypercaloric diet ad libitum. The histological slides were evaluated by light microscopy and analyzed by computerized cell morphometry. The number of adipocytes, as well as the medium, minimum and maximum diameters were calculated for each microscopic field.
Results
Medium adipocyte diameter is significantly smaller in the mesenteric adipose tissue compared to inguinal subcutaneous adipose tissue (mesenteric 47.05 ± 14.88 μm, subcutaneous inguinal 59.54 ± 18.86 μm, $p < 0.05$). The comparison of minimum diameters revealed the same correlation (mesenteric 19.44 ± 2.18 μm, inguinal subcutaneous 27.91 ± 1.61 μm, $p < 0.05$). The maximum adipocyte diameter is significantly higher in the inguinal subcutaneous compartment versus mesenteric compartment (112.50 ± 6.31 μm inguinal subcutaneous, mesenteric 88.11 ± 7.88 μm, $p < 0.05$). The comparison of the number of adipocytes showed no significant difference between the two compartments.
Conclusion

The results obtained reflects that the mechanism of growth of subcutaneous adipose tissue is hypertrophy and the mechanism of expansion of mesenteric adipocytes is mainly hyperplasia**.**

MULTILINEAR CAPACITY ASSESSMENT OF MOUSE MESENCHYMAL STEM CELLS

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Introduction

Mesenchymal stem cells (MSCs) are defined as bone marrow derived fibroblasts which have the capacity to differentiate into the three classical mesodermal lineages (adypocites, osteoblasts and chondrocytes). Different studies revealed the ability of bone marrow derived MSCs to differentiate into ectodermic lineages including neurons. The aim of our study was to evaluate the multipotency of mouse bone marrow derived MSCs by phenotypic characterization during neuronal induction.

Materials and methods

Mouse MSCs were isolated from bone marrow by flushing the femurs with α MEM (Gibco) medium supplemented with 1% penicillin-streptomycin (Gibco). Isolated cells were cultured in a propagation medium containing DMEM-F12 medium supplemented with 20% FCS (Gibco), 1% penicillin-streptomycin (Gibco), 5% horse serum (Sigma) and 10µg/5ml MycoZap (Mycoplasma Elimination Reagent, Lonza).

For neural induction, MSCs 4x were cultured in Neurobasal medium supplemented with 0.1mM β-mercaptoethanol and 1% glutamax for 2 weeks. For phenotypic characterization, were evaluated the expression of S-100 protein and neuron specific enolase (NSE) during differentiation. The immunostained cultures were examined using a fluorescence microscope.

Results and conclusions

Our results confirmed the multipotency of isolated cells by neuronal differentiation. At 3 days after neurogenic induction, cells morphology changed, appearing star-shaped cells and at day 4 were present specific neuritic networks. At 2 weeks after induction, the immunostaining showed the presence of S-100+ cells, confirming the glial differentiation, as well as NSE+ cells, an indicator of neuronal differentiation.

POST-TRANSPLANTATION DISTRIBUTION OF CD44+ HUMAN MESENCHYMAL STEM CELLS IN A MOUSE MODEL

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Introduction

Mesenchymal stem cells are playing an important role in tissue engineering. Because of their properties to differentiate in multiple lineages, these cells became promising materials for the treatment of different types of degenerative disease, including bone disorders. In order to evaluate the distribution of xenogeneic MSCs engrafment, the aim of our study was the screening of this phenomen in different stages after intraperitoneal (i.p.) injection of CD44+ human MSCs in a mouse model for osteoporosis.

Materials and methods

Human MSCs were harvested from the palatal subepithelial connective tissue. The cells were grown in DMEM/F12 (Sigma Aldrich) supplemented with 10% fetal calf serum (FCS), 100 U/ml penicillin and 100 mg/ml streptomycin. After i.p. transplantation of $1{,}1x10^6$ CD44+ hMSCs in a mouse model , the. screening of donor cells engrafment from blood samples was assessed at 4 and 11 days post-transplantation. The mice were euthanized by cervical dislocation at 14 days, followed by hMSCs engraftment assessement in blood, bone marrow and spleen samples. Results were quantified by immunophenotypic characterization with FACS Canto II flow cytometry system (BD Biosciences, San Jose, CA, USA).

Results and conclusions

Our data confirmed the special homing characteristic of human MSCs in a mouse xenograft model. At 4 days post injection, in blood samples was found a percentage of 0,5% CD44+ cells and at 11 days, a percentage of 0,1% of CD44+ cells. At 14 days, a percentage of 0,1 % CD44+ hMSCs was found in blood as well as in bone marrow, but all spleen samples were negative.

CURRENT ISSUES IN FISH CORTISOLE DOSAGE

REVIEW PAPER

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Introduction

One of the most frequently measured stress indicators in fish is cortisol. The reasons are: cortisol can accurately and rapidly be measured using commercial ELISA or RIA kits, wide variety of procedures for sampling, the plasmatic concentration tends to rise when the fish is exposed to different stressors. Briefly, when the hypothalamo-pituitary-interrenal axis is activated, the corticotropin-releasing hormone, stimulates the pituitary gland in producing the adenocorticotropic hormone, that in turn stimulates the synthesis and release of cortisol in blood by the interregnal glands, triggering the second and third stress response.

Materials and methods

Cortisol can be processed from blood, bile, whole body homogenates and water. Edward J. Branson (2008) states that the most meaningfull measurement is that obtained in the blood. Samples are obtained by heart, caudal vein/artery, or the posterior cardinal veins puncture. Pottinger et al. (1992) considers dosing cortisol in the bile, harvesting the samples by gall blader punction or removal of the entire structure. When the fish is too small, Pottinger et al. (2002) recommends measuring cortisol levels in whole-body homogenates, the fish being humanely killed before homogenisation in a suitable vehicle. Ellis T. et al. (2004) measured the cortisol concentration in water, but only for an enclosed volume of water with known inputs and outputs.

Results and conclusions

Branson (2008) states that cortisol in blood immediately reflects the secretory activity of the interrenal tissue. Pottinger (1992) demonstrated that cortisol metabolites concentration in the bile is extremely elevated in fish exposed to chronic stress. The same autor states that the whole body homogenisation method is suitable for measuring acute but also chronic stress in small fish. Ellis T (2004) got excelent information regarding the endocrine status of the fish population. In conclusion cortisol is apparently the most realiable and accessible witness of stress in fish and the possibilities of measuring it are wide.

THE SUPPLEMENTATION EFFECT OF FEED WITH SELENIUM, ZINC AND MAGNESIUM ON BIOCHEMICAL SANGUINE PARAMETERS IN LAYING HENS

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Materials and Methods

The experiment was conducted in a poultry farm in the Western part of the country, on 144 ISA BROWN hens, for the duration of a production cycle. The biological material used in the experiment was divided into 4 experimental groups, each group being constituted of 36 hybrid hens. In the experiment we used (corresponding to the 4 groups) a structure of mixed supplemented fodder in three experimental variants with selenium, zinc and magnesium. The blood biochemical parameters were determined in the three experimental stages.

Results and Conclusions

In the ascending phase of the egg laying curve, proteinemia ranged below the lower limit reference with the hens in the control group and those in the group supplemented with magnesium. In the steady phase proteinemia was in reference values at all experimental variants. In the downward phase although proteinemia was within reference limits, significant differences were confirmed between the control group and the groups supplemented with minerals.

In the upward and downward phase of the egg laying curve, enzymatic activity of AST was within reference limits in all groups of hens, and in the steady phase, its activity was greatly reduced in the groups of hens supplemented with minerals. In the upward phase ALT had lower values for all the hens in the experiment. In the downward phase its activity was higher in hens in the control group compared to the groups supplemented with minerals.

In the upward and downward phase the enzyme activity of GGT was within normal limits, only in the steady phase it was more intense. ALP showed higher values for all hens in the experiment. Uricemia and amylasemia of the hens in the experiment were within the normal range.

THE SUPPLEMENTATION EFFECT OF FEED WITH SELENIUM, ZINC AND MAGNESIUM ON EGGS AND MEAT BIOPRODUCTIVE INDICES IN LAYING HENS

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Materials and Methods

The experiment was conducted in a poultry farm in the Western part of the country, on 144 ISA BROWN hens, for the duration of a production cycle. The biological material used in the experiment was divided into 4 experimental groups, each group being constituted of 36 hybrid hens. In the experiment we used (corresponding to the 4 groups) a structure of mixed supplemented fodder in three experimental variants with selenium, zinc and magnesium.

Results and Conclusions

The supplementation of the feed, designed for hybrid hens in the upward phase of the egg laying curve with selenium, zinc and magnesium led to the reduction in the total consumption of feed with additional variants compared with the control group. Feed supplementation with selenium (SEL PLEX) determined the insignificant increase in the egg production, compared to the other variants tested in the upward phase, but a significant increase in the steady and downward phase of the egg laying curve. Zinc supplementation has also led to an insignificant increase in egg production in the upward and downward phases versus the control group. Magnesium supplementation led to the worst results on egg production and their average weight. Egg mass amount obtained from experimental variant which consumed feed supplemented with magnesium was slightly lower than the control group during the upward and downward phase. The lowest fodder conversion index for the entire experimental period for all phases of the egg laying curve was recorded with hens whose ration was supplemented with selenium. Magnesium supplementation in the three phases of the egg laying curve resulted in a fodder conversion index lower with respect to the variants supplemented with selenium or zinc, but also to the control group.

ASCORBIC ACID CAPACITY OF QUENCHING DPPH·- SPECTROPHOTOMETRICAL APPROACH; A PREMISE FOR THE FUTURE USE OF VITAMIN C AS A REFERENCE ANTIOXIDANT IN THE EVALUATION OF THE TOTAL ANTIOXIDANT CAPACITY

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Introduction

There is an increasing interest in developing methods for estimating the efficiency of antioxidants, such as the one based upon the use of the stable free radical diphenylpicrylhydrazyl (DPPH·).

Oxidative stress is associated with the generation of reactive oxygen species, including free radicals. The health-promoting properties of fruits and vegetables are due to the presence of vitamins (A, C, E), phenolics, anthocyanins and flavonoids. L-Ascorbic acid represents an important quality indicator that contributes to the antioxidant properties of food. Analytical techniques for antioxidant content and antioxidant capacity determination include chromatography or electrochemical methods. Spectrophotometric techniques rely on the reduction of DPPH·, $ABTS^{+}$· or of a complex (ferric ion-tripyridyltriazine), by a reference antioxidant, accompanied by the absorbance diminution**.** The aim of this study is to investigate the ascorbic acid capacity to quench DPPH·**,** as a premise for the use of ascorbic acid as reference for antioxidant capacity estimation.

Materials and methods

The value of the absorbance was monitored at 515 nm using a Carl Zeiss Jena Spekol 11. Ascorbic acid solutions were prepared by dilution from a stock 1 mM solution. The antioxidant was added to the DPPH· 0.12 mM solution, so that vitamin C concentrations varied within the range 1 μM - 55 μM.

Results and discussions

The DPPH· absorbance was monitored, in the presence of increasing ascorbic acid concentrations. A linear dependence can be noticed, for antioxidant concentrations ranging between 4 μM and 48 μM. The absorbance variation (ΔA), was represented as a function of ascorbic acid concentration. The absorbance variation was calculated as $\Delta A = A_0 - A_c$, where A_0 is the absorbance of the blank DPPH· solution and A_c is the value of the absorbance in the presence of different (increasing) vitamin C concentrations. The variation of the inhibition (Q%) was plotted for different vitamin C concentrations. The value of the inhibition, Q%, increases linearly with the increase of the antioxidant concentration, up to a concentration of 48 μM ascorbic acid. No significant increase of the inhibition value is observed for greater vitamin C concentrations.

Conclusions

Ascorbic acid is capable to scavange the DPPH· free radical, even in very low concentrations, namely within the range 4-52 μM. This can consitute a basis for antioxidant capacity estimation, using vitamin C as a reference antioxidant.

VARIATION OF SOME BIOCHEMICAL INDICES IN CHICKS FED WITH ORGANIC SELENIUM SUPPLEMENTED FODDER

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Selenium is known to be an antioxidant mineral element that prevents free radical formation. It has its own biochemical role, by mediating the glutathione activity, thus indirectly protecting the hemoglobin from peroxidation. In the beginning of egg laying period, the chicks are found in full growing and process, thus their organism must satisfy both the metabolic needs oriented to a harmonious development and the ones needed for egg production. It is likely that, by intensifying the metabolic processes, to generate more free radicals, so that it is possible that the organism is exposed to greater oxidative stress than normal.The present paper studied the beneficial effects of supplementing the fodder ratio with organic selenium on some blood biochemical indices in chicks: ascorbinemia, piruvicemia, proteinemia, turbidity, glicemia, lipidemia, phospholipidemia and cholesterolemia. It must be mentioned that all the values obtained were in normal range for the specie, hybrid, age, sex and production category. After feeding the experimental group of chicks with organic selenium supplemented fodder, several alterations of the blood biochemical panel have been noticed, by the more significant or not increase or decrease of the above-mentioned indices. The increase of ascorbinemia, blood turbidity and lipidemia are noticed, while the piruvicemia, proteinemia, glicemia, phospholipidemia and the cholesterol levels in blood decrease. The increase or decrease of these biochemical indices consequent to the supplementation of the fodder with organic selenium will result into the prevention of oxidative stress and into a higher efficiency of fodder conversion rate.

VARIATION OF SOME BIOCHEMICAL INDICES IN CHICKS FED WITH L-CARNITINE SUPPLEMENTED FODDER

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L-carnitine and its compounds were discovered at the beginning of the 20th Century, but their effects in the animal organisms have yet to be elucidated. L-carnitine is a quaternary amine with a very important role in the activity of both the cardiac and the skeletal muscles and many more tissues. It protects the cellular membrane from the ischemic reperfusion by increasing the resistance of the cellular membrane from the action of free radicals, and so prevents the installing of oxidative stress.

The present paper studied the beneficial effects of supplementing the fodder ratio with L-carnitine on some blood biochemical indices in chicks: ascorbinemia, piruvicemia, proteinemia, turbidity, glicemia, lipidemia, phospholipidemia and cholesterolemia. It must be mentioned that all the values obtained were in normal range for the specie, hybrid, age, sex and production category.

After feeding the experimental group of chicks with L-carnitine supplemented fodder, several alterations of the blood biochemical panel have been noticed, by the more significant or not increase or decrease of the above-mentioned indices.

The increase of ascorbinemia, blood turbidity and insignificantly elevated glycemia is noticed, while the piruvicemia, proteinemia, lipidemia, phospholipidemia and the cholesterol levels in blood decrease.

All these alterations have beneficial effects on the metabolism and would, consequently lead to a better assimilation of fodder and a better economic output.

COMPARATIVE RESEARCH REGARDING THE MORPHOLOGY OF THE DORSOLUMBAR SPINAL SYSTEM IN OVINES AND CANINES

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Introduction

The dorsolumbar spinal muscles, placed in close vicinity of the thoracolumbar vertebral column and of the ribs, is divided into three longitudinal muscular systems: a lateral one, an intermediate one and a medial one, each consisting in superposed muscle fascicles. These systems carry through to the cervical area. Research main objective was to demonstrate the special development of this system in carnivores comparative to ovines, quick motion in the case of the first category of species being correlated to possible hyperextensions of the rachis in these species.

Methods and Resources

Research was conducted on a number of 5 ovine and 5 canine representatives, the muscles being dissected in consecutive layers up to visibility's limit using the Nikon SMZ-2T stereomicroscope. Photographs were taken of the most important elements. The description and homologation of the formations was realized according to N.A.V. 2005.

Results

In both species it was determined that the lumbar iliocostal muscle is separated from the large dorsal muscle. The main muscle that has a part in the hyperextension of the rachis in canines is the large dorsal muscle, consisting of 4 portions. The interspinous muscles are more developed in carnivores and are replaced by the interspinous ligaments in ovine. From the multifidus muscle, in canines, are differentiated the rotator muscles which are also well developed.

Conclusions

Comparative to ovines, dogs have better developed dorsolumbar spinal muscles that also have a better featured insertion base. For either of the two species it is not a matter of a genuine "common mass" because of the distinction of the lumbar iliocostal muscle.

MORPHO-FUNCTIONAL CORRELATIONS OF THE FOREARM MUSCLES IN OVINES AND CANINES

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Introduction
The muscles located in the forearm region suffer many variations in domestic mammals, variations that are correlated with the diversity of specializations and numerical differences of the digits. In dogs, well represented are the pronation and supination muscles, responsible for the mobility possibilities in this species.

Matherial and Methods
Research was conducted on a number of 5 ovine and 5 canine representatives, the muscles being dissected in consecutive layers up to visibility's limit using the Nikon SMZ-2T stereomicroscope. Photographs were taken of the most important elements. The description and homologation of the formations was realized according to N.A.V. 2005.

Results
In both ovine and canines, the carpal, metacarpofalangian and interfalangian articulations are mainly systemized to comply with the flexion and extension of the structures. As these motions are realized in the same direction for all of the above articulations, the extensor muscles are grouped on the dorsal side and the flexor muscles on the palmar side of the forearm. Topographically, in dogs, the supination muscles come under the dorsal extensor muscles category and the pronation muscles under the palmar flexor muscles category.

Conclusions
In dogs can be noticed the existence of the supinator muscle, located laterally to the elbow articulation, covered by the carpal radial extensor muscle and the digital extensor muscles. In the caudal muscles category were included the round pronator muscle, located medially to the elbow articulation and the pronator quadrutus muscle, contiguous with the fibrous membrane of the forearm.

CONCERNING THE JOINT MORPHOLOGY OF THE FORE LIMB IN THE DOMESTIC PIG *(Sus scrofa domestica)*

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Introduction
This study's purpose was to obtain a systematic and detailed description of the fore limb's articulations in the domestic pig because in specialized literature there still are o series of insufficiently clarified aspects (e.g. Disaccords between authors regarding the presence of collateral ligaments in the antebrachial-carpal region). The research main objective is presenting the anatomic reality, demonstrated through images of the dissected pieces.

Methods and Methods
Research was conducted on articulations of 4 adult specimens. Articular surfaces and their means of connection were described and photographs of the most important elements were taken. The description and homologation of the formations was realized according to N.A.V. 2005.

Results
Noticeable are the particularities of the antebrachial-carpal-metacarpal articulation: the complete number of independent carpal bones involves the numerical increase of the carpal ligaments. The articulation has three synovial bursae, one for the antebrachial-carpal articulation and two for the mediocarpal articulation. Because of the abundance of subcutaneous conjunctive tissue, the acropodial synovial bursae are not visible in this species.

Conclusions
The authors observed and described mainly morphological resemblances to the anatomy of ruminants. There are however significant differences between the two species which are the result of breeding and caring for this species usually in areas that narrow down their possibilities of movement.

HUMAN HEALTH ISSUES ASOCIATED WITH EXPOSURE TO SWINE FARM

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Introduction

Over the past 20 years the increasing growth of hog population and ILO(Intensive Livestock Operations) in Romania like everywhere around the world has resulted in the increase of community and environmental complaints due to concerns about the impact of nearby residents, contamination of local drinking water and ground water source as well as the overall impact on the quality of life of the community.

Concerns about human health have drawn considerable attention from researchers, veterinary practitioners and swine producers ;these concerns include exposure to odors, waste, resulting flies, poor air quality and contamination of water sources.

Material and Methods

The paper is based on a study conducted in 1999 – 2009 by the School of Public Health, at the University of North Carolina and Kelly Donham D.V.M., Prof., Institute of Agricultural Medicine and Environmental Health University, Iowa College of Medicine, as well as our team.
The report presents the updated results of these studies as follows:
Section 1: Air quality and Human Health Risks
Section 2: Physical Health Effects on Neighbors living in a Swine Farming Community
Section 3: Mental Health Effects on Neighbors Living in a Swine Farming Community
Section 4: Hazardous Chemical Database Reference Chart

Results and Conclusions

The study shows beyond any doubt the huge impact swine farming has on swine confinement workers (100%of the confinement workers reported suffering for one or more symptoms caused by inhalation of confinement dusts and gases) as well as nearby communities.
In pointing out the effects of swine farming on confinement workers and nearby communities the study not only draws attention to the subject but also comes as a great help in finding the proper corrective solutions .

THE OPTIMIZATION OF HISTOLOGICAL TEHNIQUES FOR ANATOMICAL PIECES

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Introduction

In purpose to identificate structural modifications have been produced on intestinal epitelium of the bee, consecutive parazitism with the sporozoar *Nosema spp.* there have been performed examination studies for fixing and histological coloration steps of anatomical pieces gathered from medium and posterior intestin of these species.

Material and Methods

There have been tested a lot of chemical fixators, with different type of formulation and concentration to demonstrate the most proper formulas for histological examination studies at bees. Considering the characteristics for sampling and primary processing of anatomical pieces gathered, therefore have been observed that the period between minimum 12-48 hours and maximum 30 days, is optimal to study the action of chemical agents in trusty preservation a cellular and tissue structure which is typical for medium and posterior portion of digestive system, the principal election zone for endoparasites.

Results and conclusions

At the end of the examination performed, there have been obtained microscopical images photo edited and computer based interpretation, which have been identified the fixator and the coloration methods which permit obtaining histostructual aspects, at all thicknesses, the cells and specifically tissues for medium and posterior portion of intestine, as well as specifically injuries produced by the *Nosema spp* protozoa and associated viruses.

HAEMATOLOGICAL RESEARCH ON PIGS AFTER USING SOME NONSPECIFIC IMMUNOMODULATORS

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Batches of piglets reared in intensive system were nonspecific immunomodulated During the experiment, three blood samples ,necessary for haematological determinations,have been performed.

In group A, it was administrated a bacterial suspension (Corynebacterium parvum). Group B received Levamisol product (for veterinary use) and group C received vitamin E and Selenium, using Romselevit. Group D was used as a witness group, being submissed to vaccination only.

Hemoglobin concentration in group A (modulated with Corynebacterium parvum), significantly increased after the second harvest compared to harvest I. The final collection showed a significant decrease in these concentrations, all distinctly significant compared to harvest II. In groups B, C, and D, hemoglobin concentrations showed an increase in statistical terms ,only at an intermediate collection (highly significant), then remained constant.In group A, modulated with Corynebacterium parvum, hematocrit increased significantly distinct from harvest I. The final collection showed a decrease in these levels, manifested statistically significant from the second harvest.In groups B and D, hematocrit increased statistically at the intermediate harvest (significant) The final harvest was similar to the intermediate concentrations. In group C there were changes in the sense that after a distinctly significant increase in hematocrit values ,it decreased at the intermediate harvest without any interest in statistical terms.

The number of red blood cells showed a distinctly significant increase in group A,at the second collection compared to the first one ,the final harvest decrease being statistically significant.

PSYHIC STRESS AND ANIMAL PROTECTION IN DAIRY PRODUCTION

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The animal welfare, the animal protection organizations claim to be sustained, is treated as a psychical state induced by the psychic stress. The answers to stress differ with the species, the breed, the category, the physiological state and the nervous type of the individuals Understanding of animal psychic stress requires a sensible treatment of the knowledge concerning the brain physiology. In dairy production of cattle psychical stress is conducting to financial losses and lower labor productivity. There are also claims the organic synthesis taking place under stress condition is producing undesirable components for a safety food. Some causes of psychic stress and the way to avoid it in dairy cattle are discussed. It is concluded that animal welfare in dairy production is more a veterinary medicine question than a humanitarian one, but it very difficult to appreciate how costly is dairy cows to experience the psychical stress. The best's way to save costs is to prevent stress.

CLINICAL AND MORPHOPATHOLOGICAL ASPECTS IN ANTI-FREEZE INTOXICATION OF DOGS

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Introduction

Anti-freeze intoxication is most frequently encountered in dogs and cats after accidental consumption of the liquid emptied from car radiators. In ruminants, the intoxication can appear as a consequence of erratic contamination of grazing fields with the liquid from tractor tires. Other cases have been reported, due to erronate treatments applied to silage, when ethilenglicole is mistaken taken for formic acid, or after contaminated water consumption.

Materials and methods

Clinical and pathological investigations were performed on 6 dogs brought to the Faculty of Veterinary Medecine Iasi. The dogs were treated in the Internal Medecine and Toxicology Units; morphopathological investigations were performed in the Pathology Unit.

Results and Discussion

Clinical examination revealed nervous symptoms with rapid onset, represented by agitation, lack of balance, progressive cortical depression with periodic convulsive seizures or epileptiform manifestations, digestive disorders (vomit and diarrhea), signs of toxic shock (hypothermia, tachycardia, rhythmic heartbeat or arythmia occurrence, weak pulse, tahypnea, cianosis and acute pulmonary congestion).

Later, acute kidney failure occurred with anuria. Biochemical examination of blood revealed hypercreatinemia (over 8mg/dl) and high uremia (over 300, reaching even 800 mg /dl). This stage presented signs of uremic gastroenteritis (bloody vomit and diarrhea) and secondary nervous disorders (tremor, convulsions and coma). Echographic examination of the kidneys revealed diffuse hyperecogenicity of the cortical, with discrete cones of shadow, suggestive for nephrocalcinosis.

Death occurred in the first 12-36 hours in most of the cases, due to nervous depression, and in 2 of the cases after 4-5 days, due to acute kidney failure.

Necropsic examinations were performed on the 6 bodies, with accurate registration of the lesions observed. Histopathological examination revealed severe nervous, renal, pulmonary and digestive lesions, characteristic to anti-freeze intoxication.

THE SENSITIVITY TO ANTIBIOTICS OF SOME *LACTOBACILLUS SALIVARIUS* STRAINS ISOLATED FROM DENTAL ROOT CANAL AND TWO *LACTOBACILLUS* PROBIOTIC STRAINS

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Introduction

Some mechanisms regarding antibiotic resistance are known at different bacteria.

-The genes acquired from bacteria which encode enzymes such as lactamases that inactivate the antimicrobial substance before it exerts an effect.

-The efflux pumps of some bacteria can extrude the antimicrobial agent from the cell before it arrives to the target site.

-The final products of some metabolic pathway (genetic acquired by the bacteria) can alter the cell wall and the binding site for antimicrobial agent. The lactic bacteria can contain several antibiotic resistance genes that can be transferred to pathogenic bacteria.

Materials and Methods

Antibiotic sensitivity of two *Lactobacillus salivarius* strains isolated from dental root canal (G1 and G2) and two *Lactobacillus* probiotic strains by intestinal origin: *Lactobacillus salivarius* probiotic and *Lactobacillus rhamnosus* GG was evaluated using the disc diffusion method. Inhibition zone was measured in mm.

Results and Discussion

Investigated *Lactobacillus* strains were resistant to nalidixic acid and streptomycin. These data are according with Hummel et al. (2007) which reported that lactobacilli seem to be intrinsically resistant to quinolones (nalidixic acid). Danielsen and Wind (2003) and Zhou et al. (2005) also reported that some lactobacilli have a high natural resistance to streptomycin. *Lactobacillus rhamnosus* GG was resistant to ampicillin and *Lactobacillus salivarius* G1 strain isolated from dental root canal manifested resistance to rifampicin. All strains were very sensitive (Ø of inhibiting zone ≥25mm) to rifampicin and penicillin. Danielsen and Wind (2003) reported that lactobacilli generally seem to be sensitive to penicillin.

Conclusions

1. Major differences regarding antibiotic sensibility between the *Lactobacillus salivarius* strains with dental origin and the probiotic strains were not observed.
2. All strains were resistant to nalidixic acid and streptomycin.
3. All strains showed a high sensitivity to penicillin and rifampicin.

ESTABLISHING SPECIFIC GROWTH RATE OF TWO *LACTOBACILLUS SALIVARIUS* STRAINS ISOLATED FROM DENTAL ROOT CANAL AND SOME *LACTOBACILLUS* PROBIOTIC STRAINS BY INTESTINAL ORIGIN AT pH VALUES 4,5 AND 7,0

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Introduction

Lactobacilli have been isolated from specific habitats, including dairy products, plants, meat products, humans and animals.

The main goal of our study was to establish the specific growth rate of *Lactobacillus salivarius* strains isolated from dental root canal and two *Lactobacillus* probiotic strains

Materials and Methods

Two *Lactobacillus salivarius* strains isolated from dental root canal (G1 and G2) and two *Lactobacillus* probiotic strains: *L.salivarius* probiotic and *Lactobacillus rhamnosus* GG were used in this work. These strains were grown in MRS broth in Anglicon fermenters, at 37ºC and CO_2 5% atmosphere, at pH 4,5 and 7,0. The DO_{600} values were determined in the moment of inoculation (T0) and than hourly (moment T1 after one hour, T2 after two hours, T3 after three hours etc).

The DO_{600} values were plotted on logarithmic graphic and the curves growth were obtained. The specific growth rate (μ) and generation time (Δt) were calculated.

Results and Discussions

Lactobacillus salivarius strains isolated from dental root canal showed higher specific growth rate at pH 4.5 (G1 0.81 and G2 0.7) compared with probiotic strains (*L. salivarius* probiotic 0.48 and LGG 0.56). Also, at pH 7.0 the values of the specific growth rate of strains with dental origin were higher (1.26 for G1 and 0.92 for G2) than those of the probiotics strains (0.77 for *L. salivarius* probiotic and 0.69 for LGG).

The values of generation time (Δt) were smaller at *Lactobacillus salivarius* strains isolated from dental root canal than those of probiotic strains at both pH values.

Between the specific growth rate and the generation time is a high negative correlation. The correlation Pearson factor was r = -0,99.

Conclusions

1. Higher values of specific growth rate at pH 7.0 were registered for all *Lactobacillus* investigated strains compared with those at pH 4.5.
2. The strains with dental origin were shown biger specific growth rate values at both pH values compared with the probiotic *Lactobacillus* strains.
3. A negative correlation between specific growth rate and time generation was observed.

IMPLEMENTATION OF MOLECULAR TECHNIQUES FOR FELINE AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD) DIAGNOSTIC

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Introduction

Autosomal-dominant polycystic kidney disease (AD-PKD) is one of the most prevalent inherited genetic diseases of cats, primarily affecting Persian, British Short Haired and their cross-breeds. Traditionally, the disease diagnostic is performed using ultrasound examination, with cats being screened usually at the beginning of three years of age. However, with the identification of a single nucleotide mutation in the PKD1 gene that has been correlated with the disease, use of different molecular approaches to identify this event are nowadays possible, greatly speeding up the diagnostic by lowering the age of screening together with great accuracy.

Material and Methods

EDTA blood was collected from eight Persian cats and the DNA was automatically extracted using magnetic glass particles technology. Exon 29 was amplified using previously described protocols and then subjected to direct sequencing. Obtained sequences were assembled and aligned against GenBank reference data and checked for C → A transversion.

Results

Single nucleotide substitution (heterozigous form) was identified in six patients, with citosine being replaced with adenine in one of the allele. Results chorelated with ultrasound examination, where multiple sized cysts were identified in both of the kidneys. Two cases were found to be homozigous with citosine on both allele, also chorelated with normal ultrasound findings.

Conclusions

Molecular tests proved to be extremely reliable in PKD1 mutation identification, therefore such techniques are of real aid in early diagnostic of the condition. Unlike ultrasound examination that is normally performed after one to three years of age and sometimes without alteration or inconclusive results, such approach is feasible starting with patient birth and can rapidly exclude affected animals.

INFLAMMATORY AND NON-INFLAMMATORY INDUCED ARTHRITIS IN MICE

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Introduction

The need for experimental models of arthritis is as important as the pathology itself in both human and veterinary medicine. We aimed to develop models of inflammatory and non-inflammatory arthritis by using hyaluronidase and influenza virus in mice.

Materials and Methods

Balb/c mice where immunized with 1µg PR8 influenza antigen or challenged with sub-lethal dose of live virus and latter given a 10µl intra-articular injection of the same antigen. Controls received the same treatment or 300 UI of hyaluronidase intra-articularly. Body weight and clinical signs were monitored for 2 weeks and mice were sacrificed for immunophenotyping of draining lymph nodes (dLN) by flow cytometry (only for the influenza groups), cytology of synovial fluid and histopathology of the knee joint.

Results

We observed normal body weight gain and no clinical signs or impaired functionality of the joint. Cytospins of synovial fluid showed no differences between the investigated or contra-lateral joints or between groups. Immunophenotyping revealed an increase in CD44+ B cells in the dLN of PR8 immunized mice or infected mice compered to the dLN of the opposite limb. CD4+ T cell percentages were not modified whereas CD8+ cells seem to decrease in the dLNs of immunized mice. Histology showed no lesions in the hyaluronidase group. Knees from PR8 immunized mice showed mild articular damage.

Conclusion

Influenza antigens seem to induce articular damage if they reach the joint of an immunized host. The immunopathology behind this process remains to be defined along with the suitability of this model for studying arthritic disease.

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SOME OBSERVATIONS ON EXPERIMENTAL MODEL FOR INDUCING DIABETES IN MICE AND RATS.

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Diabetes mellitus, or simply diabetes, is a group of metabolic diseases in which a organism has high blood sugar, either because the body does not produce enough insulin, or because cells do not respond to the insulin that is produced. This high blood sugar produces the classical symptoms of polyuria (frequent urination), polydipsia (increased thirst) and polyphagia (increased hunger). It is known that some dietary behaviors may increase the likelihood in which certain diseases occur both in humans and animals.

The unidirectional diet may alter both the metabolism, as well as the level of some blood components (hormones, sugars, lipids etc.), which may be markers for the incidence of some morbid entities. These concepts may be applied to laboratory animals in order to induce metabolic syndromes in experimental conditions similar to the ones seen in humans.

Diabetes in animals most commonly affects middle-aged and older animals and is most common in female dogs and male cats. There are two types of diabetes in animals, uncomplicated diabetes and diabetes with ketoacidosis. When diabetes occurs in young animals, it is often genetic and may occur in related animals.

The purpose of the experimental investigations was the possibilities of inducing a hyperglycemic syndrome in mice (C57Bl6 strain) and in rats (Sprague Dawley strain), a syndrome similar to that found in humans after consuming fructose-containing processed foods.

Pure substances like casein, maltodextrin, sucrose, fructose, cellulose were used, in two diets:

- standard diet according to AIN-93M;
- experimental diet consisted in total replacement of the corn starch, of the sucrose and of the maltodextrin with a 60% fructose diet.

Compared to the standard diet fed lot, the glucose tolerance was disturbed in the experimental lot after 39 days of feeding with the 60% fructose diet, and glycosuria was detected at female with the two species after 79 days, which may indicate the disturbance of the dietary metabolism, that is characteristic to the hyperglycemic syndrome.

HEMATOLOGICAL AND BLOOD BIOCHEMICAL PARAMETERS IN HAMSTERS AFTER THE ADMINISTRATION OF THIAMPHENICOL

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Introduction

Thiamphenicol is a broad-spectrum antibiotic, structurally similar to chloramphenicol, used to treat infections in humans and animals. The aim of this study was to record the possible changes of hematological and biochemical parameters induced by the administration of thiamphenicol in hamsters, at therapeutic doses.

Materials and Methods

The study was conducted on an experimental lot of 10 hamsters, a control group included five hamsters. Experimental model consisted in thiamphenicol administration for 7 days at a dose of 35 mg/kg once a day by intramuscular injection. After the treatment, blood samples were collected for biochemical exams (AST, ALT, ALP, BUN, creatinine) and hematological exams (number of erythrocytes, hematocrit, hemoglobin, leukocyte formula).

Results

Although the activity of the enzymes markers of liver cytolysis was slightly higher in hamsters treated with thiamphenicol than in those in the control group, still they were within physiological range of the species. Urea and creatinine showed higher values in hamsters treated with thiamphenicol compared to control hamsters; these values exceeded the maximum physiological limit. Hematological parameters of hamsters treated with thiamphenicol showed slight changes, manifested mainly by the decrease of erythrocytes (and consequently low levels of hemoglobin and hematocrit) and leukocytes number, compared to average physiological limits. As for leukocyte formula percentage, it remained generally constant, supporting the idea that bone marrow damage manifested in all cell lines.

Conclusion

Liver is not a target organ of thiamphenicol's toxicity, probably because this substance does not undergo hepatic metabolism processes, being eliminated almost entirely unchanged by the kidneys. Hematological exams showed that during treatment with thiamphenicol for 7 days, hamsters suffered a slight bone marrow depression.

COMPARATIVE EFFICIENCY OF TIAMULIN AND DIMETRIDAZOLE IN CONTROLLING SWINE DYSENTERY

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Introduction

Young pigs are susceptible to gastrointestinal disorders and digestive disturbances as a result of their immature digestive system. An effect of this is an increase in the prevalence of post-weaning scours, which leads to retarded growth, increased mortality, and additional medical costs. Tiamulin based products are used in swine medicine to treatment, control and prophylaxis of dysentery, pneumoniae and mycoplasmas diseases. Dimetridazole is an antihistomonal drug traditionally used for prevention and treatment of haemorrhagic enteritis in pigs.

Materials and Methods

The study was conducted with three piglets groups, at the weaning period, that showed clinical signs consistent with porcine proliferative enteropathy. Piglets that showed clinical signs of gastrointestinal disease were treated for five consecutive days with tiamulin hydrogen fumarate, soluble granules added to the drinking water (60 mg per liter) or with dimetridazole insoluble powder administered in feed (25 mg/kg bw). Piglets uniformity was assessed from the coefficients of variation of the individual body weight and differences between treatment groups were analyzed using Fisher test. Significant differences were considered when $p<0.05$. Linear regression was used to analyze average daily gain. Statistical analysis was done with SPSS 17.0.

Results

Levels of average daily gain revealed significant differences ($p<0.0001$) between Tiamulin and Dimetronidazole. Positive correlations ($r=0.95$) of the average daily gain and treatment with Tiamulin ($p<0.0001$) and coefficient of determination $R^2=0.91$ ($p<0.001$) were found. For Dimetridazole, the correlation coefficient is $r=0.71$ ($p=0.0063$) and the coefficient of determination is $R^2=0.51$ ($p=0.006$).

Conclusion

The results of our experiments confirm the high effectiveness of Tiamulin in drinking water in treating and controlling the clinical, pathological, and negative productivity, main effects of porcine proliferative enteropathy

MORPHOPATHOLOGICAL ASPECTS IN THE GENITAL FORM OF THE AVIAN INFECTIOUS BRONCHITIS

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The genital form of infectious bronchitis was macroscopically and microscoplically diagnosed in reproductive hybrid Issa Brown chickens aged 35 to 42 weeks old (90 hens and 8 roosters) which were necropsied at the Pathological Anatomy and Legal Medicine Discipline. The cases originated from an intensive farming unit, where the epidemiologic inquiry, the clinical morphopathological exam and the serological exam (ELISA technique) established the avian infectious bronchitis diagnosis. Several qualitative modifications were found in exteriorized eggs, such as depigmentation of the shells, soft and/or rippled shells, uneven sized eggs, missing yolk or undiferentiated contents of the eggs.

Macroscopically, respiratory and renal lesions in egg producing hens were discrete or missing, with a predominance of lesions in the genital apparatus. The ovary, red-brown or green in colour, was (hypotrophied), with degenerated, soft pedicled ovisacs and with a pear-shaped appearance. The oviduct was reduced in length, volume and weight, with a thickened and undulated mucus membrane, having a corrugated appearance. In 12 cases were found yolk peritonitis.

Histopathologically, , in reproductive age hens, ovarian atresia and cystic degeneration; deciliation of the oviduct epithelium; glandular dilatation and the infiltration of lymphocytes and histiocytes in certain areas of the oviduct mucus membrane were identified. These lesions determine the appearance of qualitative modifications in the eggs.

In roosters, testicular hypertrophy as a consequence of limfohistiocitosys interstitial mesenchymal hyperplasia and fibrosis, accompanied by atrophy, dystrophy and necrosis of the seminiferous tubular epithelium were identified.

Ovisacs, salpinx and testicular changes, explains infertility status of the avian infectious bronchitis genital form cases.

FIRST REVIEW ABOUT THE BIODIVERSITY AND DYNAMIC OF POLLINATING INSECT SPECIES OF WILD BEES (APOIDEA) IN SOME AGRICULTURAL CROPS FROM ROMANIA RELATED TO THE PROTECTION METHODS, AGRICULTURAL LANDSCAPE AND BIODIVERSITY CONSERVATION IN NATURA 2000 AREAS

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Introduction

The density and biodiversity of pollinators species of wild bees (Apoidea) from three representative types of ecosystems selected from two research and development area were evaluated: Muntenia Sud region and Sud-Est region. The pollinators species of wild bees had a crucial role and useful activity on some agricultural crops, according of the holistic conceptual model of functional evaluation FAEWE/PROTOWET.

Material and Methods

The density of wild bees was estimated by number of individuals/ha collected according of Banaszak and Manole (1980) method and diversity/richness of species was estimated using Shannon-Wienner (H') index.

Results and Conclusions

A total number of 106 wild bees species belonging to 7 taxonomic families was found: Colletidae, Andrenidae, Halictidae, Melittidae, Megachilidae, Anthophoridae and Apidae. In the first area of research three types of ecosystems were selected for investigations: semi-natural (oak tree forest), alfalfa and sunflower. The density shows the dominant species: *Andrena flavipes* Panz., the diversity index had a high value (2.70). In the alfalfa crops 77 wild bees species were identified, the dominant being *Bombus lucorum* L. In the sunflower ecosystem 70 wild bees species were found, the dominant populations were *Apis mellifera* L. In second selected region of development, in the first type of ecosystem (alfalfa) 88 species of wild bees were identified from which the dominant populations were: *Bombus pratorum* L., In sunflower 70 species of wild bees were identified with the dominant populations of *Apis mellifera* L.

MONITORING THE RISKS OF SOME PHYSIOLOGIC FACTORS OF LACTATION IN PIC SOWS ON THE HEALTH OF SUCKLING PIGLETS

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Introduction

Monitoring the action of various risk factors on the health of lactating sows and piglets made remarkable progress in recent decades, leading to fewer losses during the lactation-weaning period.

Materials and Methods.

The influence of physiological factors (age, weight at first calving and some genotypic, phenotypic and environmental characteristics) on prolificacy and the lactation capability of sows, respectively the growth and health indices of piglets were monitored in an industrial breeding PIC pig farm with a population of 200 sows. Evaluations were based primarily on quantification of biometric parameters in piglets.

Results and Conclusions

Summary of the data regarding the influence of age (calving rank) on milk production in sows revealed a maximum production level in the 2nd or 3rd lactation period in correlation with increased prolificacy (11.90 respectively 11.70) and lactation capability (65.00 respectively 64.00) and the reduction of mortality in piglets (3.60% respectively 3.70%). The evolution of these indices revealed that sows can be effectively exploited in the first 5 lactations, after which age significantly limits milk production. Making the first fertile breed respectively the first calving at an optimal age (233-238 respectively 348-353 days) also contributed to ensuring milk production. Lactation curve was characterized by an upward phase in the first 7-10 days, a plateau of about 10 days and a downward phase, consisting of slow decrease in milk production followed by a marked reduction around weaning. In the last year, total losses of the farm (10.20%) were largely represented by mortality in suckling piglets (45.00%).

STUDIES CONCERNING THE DEVELOPMENT OF LIPID NANOSTRUCTURES FOR BIOPRODUCTS ENCAPSULATION

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Introduction

Methylxantine derivatives (MX) are used both in human to treat cerebrovascular and peripheral vascular diseases, in dogs to improve microcirculation and as a consequence diminish inflammation and enhance healing of many kinds of skin lesions including: ulcerative dermatosis of Collies and Shelties; dermatomyositis; ear margin seborrhea; atopic disease; and other skin diseases with underlying vasculitis and in horses to treat endotoxemia, laminitis and navicular disease. They, because of their pharmacokinetic properties, are recommended as good candidates to from the modified release, in order to improve our bioavailability and compliance.

This study was aimed at the development of a method for encapsulating MX in order to improve their bioavailability and to achieve a controlled drug release profile. Also, the evaluation of the encapsulated forms was studied.

Materials and Methods

From the various lipid nanostructures preparation methods, the hydration of a lipid film was considered as being the most suitable for the encapsulation of methylxantine derivatives. Four formulas for both derivates were prepared in order to select an optimum formula (with an adequate size, yield and stability).

Size measurement: Mastersizer 2000 Malvern apparatus.

The content in drugs was analyzed spectrophotometrically.

The influence of the lipid composition and of the temperature during the hydration process on the yield was studied.

Results and Conclusion

We have determined the optimal parameters for the preparation of MX-loaded vesicles, which ensure the reproducibility of size, content and stability.

Acknowledgments

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EFFECTS OF *APIUM GRAVEOLENS* LECTIN ON HEMATOLOGICAL AND BIOCHEMICAL PARAMETERS OF WISTAR RATS

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Introduction

Lectins are (glyco)proteins found in almost all living organisms that manifest a wide range of biological roles, including mediation of cellular and molecular recognition resulting in immunomodulation, hormone-like, antitumor, antiviral or metabolic activities.

The aim of the present study was the investigation of the effects induced by administration of Apium graveolens lectin in the drinking water of Wistar rats.

Materials and Methods

Lectin preparation, obtained by affinity chromatography on Sepharose 4B, was administered to 8 Wistar male rats in their drinking water for 10 consecutive days. Other 6 animals, housed in the same conditions, on the same diet, represented the control group. At the end of the experiment animals were slaughtered and blood samples were harvested for both hematological and biochemical assays. MS9-5V Haematological Analyzer (Melet Schloesing Laboratories) and VETTEST Chemistry Analyzer (Idexx Laboratories) were used.

Results

Lectin administration induced the increase of WBC, RBC, PLT and MCV, as compared to the control group. Biochemical parameters were also influenced by lectin administration. Decrease of blood cholesterol, triglycerides, alanine aminotransferase and amylase were recorded in the experimental group.

Conclusions

The obtained results sustain the hypothesis that the tested lectin escapes the proteolytic and pH actions during gastrointestinal passage, reaches systemic circulation and induces metabolic and hematologic effects on the animals.

THE CYTOLOGIC DIAGNOSIS CONCERNING THE CAVITARY EFFUSIONS IN BOVINES

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Introduction

The cavitary effusions (pericardial, pleural and abdominal effusions) that are isolated or conssecutive to pathologic estates are frequently met in both ruminants and carnivores, regardless their age.

Materials and Methods

The research was made on 28 probes of effusions that were gathered from different bred bovines, through the punction of serous cavities. The individuals presented diverse afflictions that were accompanied by liquid accumulation at the level of internal cavities, between 2011 and 2012. The studied samples were analysed from a physical (color, transparency, consistency of the liquid), chemical (the concentration of the total protein inside the liquid) and microscopic point of view.

Results and Conclusions

In the course of the cytologic examination for the discovery of the neoplastic nature in the obtained samples, there were identified a couple of cytologic criteria of the abnormally nuclei-based cells with diverse origin, belonging to different cell lines, such as: basophilic cytoplasm baring vacuoles, a foamy aspect, an irregular shape, large multiple nuclei, a risen nucleo-cytoplasmatic rapport and a finely reticular chromatine, with a medium or an increased mitotic index etc.

LYMPH NODE DESCRIPTIVE CYTOMORPHOLOGY SUBSEQUENT TO CANCER METASTASIS

- EXPERIMENTAL STUDY-

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The authors accomplish an inventory of lymph node cell population in the Wistar outbred rat subsequent to experimentally induced cancer metastasis – specific to intratesticularly inoculated neoplastic Walker 256 strain. Relational typology advances in time, between invading cells and autochthonous lymph node cells, are demonstrated by the authors, besides the overall cytomorphological pictures in terms of populational statistics. These are depicted on a step by step basis, beginning with the cancer metastasis onset until the process dissemination throughout the entire lymph node structure, therefore turning the whole lymph node into a mass which is specific for a malignant neoplastic process.

STUDY OF SEASONAL DYNAMICS IN RESPIRATORY MICROBIAL FLORA IN EXTENSIVELY RAISED GOATS

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Introduction

An accurate evaluation of the seasonal dynamics of respiratory microbial flora in extensively raised goats represents the first step in early identification of potentially highly pathogenic bacteria in this species. The aim of the study was to monitor the seasonal influence on the bacterial flora of the animals, and therefore a comparative evaluation of changes during winter and spring seasons.

Materials and Methods

The research was carried out on 20 healthy goats, raised under extensive conditions in Transylvania. Nasal discharge samples were cultured on simple media for isolation, and then identified by use of API 20 E and API 20 Staph biochemical tests.

Results and Conclusions

During the winter season, out of the total isolated bacterial strains, 26.8% to belonged to *E.coli*, 14.6% to each *Enterobacter aerogenes* and *Erwinia spp*, 12.1% to each *Klebsiella pneumoniae* and *Enterobacter cloacae*, 9.7 % to *Staphylococcus xylosus* and 4.8% to each *Chryseomonas luteola* and *Staphylococcus lentus*. During the spring season, changes in both percentages and isolated species soocred. The highest percentages were present in *Enterobacter aerogenes* (30.5%), followed by each *Staphylococcus xylosus* and the newly isolated *Serratia fonticola* (11.2%), sharply decreased *E.coli* (8.3%) and *Erwinia spp.* (5.5%), but increased *Chryseomonas luteola* (8.6%). *Rahnella aquatilis* (2.7%), *Serratia ficaria* (5.5%), *Serratia liquefaciens* (5.5%), *Serratia marcescens* (2.7%) and *Serratia odorifera* (8.3%) were present only in the sprin season. The bacteria isolated from clinically healty goats could have a highly pathogenic character under critical/stressfull circumstances, which draws the attention to the importance of early identification of pathogens and the acurate sanitary management of the heard.

INHALATORY ANAESTHESIA AT DOGS: A PERSONAL RESEARCH

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Introduction
The study is about narcosis, frequently used today in veterinary medicine, in order to make some surgical procedures, with therapeutical, economical or estethical purpose. The substance that we have studied is an anaesthetic with selective or general effects over different structures of the central nervous system, which produces similar results with others anaesthetic in the same class.

Material and Methods
We wanted to see the anaesthetic effects of Sevoflurane, given through induction mask, on endotracheal intubated dog. We have done our research on five dogs, with different breeds and different sizes, patients of a private clinic. In each patient we have performed blood tests and we have evaluated the vital signs: heart rate, respiratory rate and temperature. In order to appreciate the presence or the absence of the nociceptive sensitivity, we have observed the reflex of limb retraction, the interdigital reflex, by pricking the dog's limb with a needle.

Results
After the inhalatory administration of Sevoflurane, we've noticed a slight increase of enzymatic activity for aspartataminotranspherase (GOT / AST), alaninaminotranspherase (GPT/ALT), gammaglutamiltranspherase (GGT), total amylase and also an increase of glycemia, comparing with the initial moment. There was no significant difference between before and after anaesthesia. The stages of anaesthesia were defined by a short time (5-10 minutes) of induction, with no significant respiratory complications (apnoea, larynx spasm, or cough) and an average time for getting out of anaesthesia of about 10-20 minutes.

Conclusions
Using inhaled Sevoflurane as an anaesthetic agent, we didn't noticed any side effects, such as vomiting, convulsions or restlessness and the temperature, the heart rate, the respiratory rate and the oxygenation of the peripheral tissues were in normal ranges.

EVOLUTION OF AN OUTBREAK OF EGGS DROP SYNDROME FROM LAYERS

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Introduction

Egg Drop Syndrome is a virosis, with high infectivity, which affects layers after the start of egg production age. The monitorized outbreak occurred on a farm of layers, with three shelters, two months after the start of egg production.

Materials and Methods

To confirm the diagnosis following exams were made: epidemiological, clinical, morphopathological, serological and bacteriological. Serological examination by immunoenzymatic assay on serum samples, taken at the age of 37 weeks (R1) and 39 weeks (R2) followed the presence of postinfectious antibodies.

Results

Eipdemiological examination revealed the source of infection and the factors which favorized it's occurence. In this farm, biosecurity measures and general prevention have been partially applied, favoring the penetration of EDS virus 76. Clinical examination revealed qualitative and quantitative changes of egg production. Egg production decreased by 10-22% for 7-14 days, depending on the shelter. Subsequently, egg production did not reach hybrid parameters. Pathological examination showed uncharacteristic lesions and bacteriological examination was negative. Serological examination confirmed the Egg Drop Syndrome presence in the farm, geometric average and titre groups underlining a postinfectious immune response that evolved differently depending on the shelter.

Conclusions

Epidemiological examination revealed that the disease arose as a result of virus penetration in the farm after the start of egg production through secondary sources. Qualitative changes of the eggs were represented by eggs with soft, deformed and depigmented shell and small eggs. Quantitative changes had different values and lasted 7-14 days, depending on the shelter. Serological examination revealed a correlation between antibody titres and the evolution of the laying curve.

GENETIC POLYMORPHISM RESEARCH IN *S.INTERMEDIUS* STRAINS ISOLATED FROM DOGS AND CATS

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Introduction

Staphylococcus infections in dogs and cats are evolving frequently, being produced by *S. intermedius.* This staphylococcus is included in the resident flora of dogs, being considered as bacterium with zoonotic risk.

Materials and methods

15 *S.intermedius* strains (9 strains isolated from dogs and 6 strains isolated from cats) were tested by genetic fingerprinting using RAPD (Random Amplified Polymorfic DNA) technique. This technique allows to determine the phylogenetic relatedness of *S.intermedius* strains.

Results

Genetic fingerprinting revealed through RAPD technique amplification bands in all strains tested. The obtained dendograms illustrates the degree of relatedness between these strains. *S.intermedius* strains isolated from dogs (9 strains) are phylogenetically distant from strains of feline origin, each having its own cluster and different origins. *S.intermedius* strains isolated from cats have similar genetic fingerprints of the same origin.

Conclusions

S.intermedius strains isolated from dogs belonged to different clones, while *S.intermedius* strains isolated from cats were derived from a common clone. In cats, there was a direct relationship between strains and cases of disease, but in dogs there wasn't a direct relationship between strains and cases of disease.

INCIDENCE OF MOBILE SEROVARS OF *SALMONELLA SPP.* ISOLATED FROM *GALLUS GALLUS* IN 2010

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Introduction

Mobile Salmonella infections are the most common and important zoonotic diseases. Poultry meat and eggs represent sources of infection for most of them, which is why the provisions of the European legislation envisage the consumer protection as well, not only the control of such infections in poultry holdings.

Materials and Methods

This paper was prepared following a longitudinal epidemiological study conducted in 2010, based on primary data collected nationally from holdings of breeding hens, laying hen eggs and broilers.
Samples were represented by faeces and disposable plastic footwear and sent to county accredited laboratories.

Results

All 655 isolated strains belonged to the species *Salmonella enterica subsp. enterica*. Incidence of isolated serovars shows that in the breeding farms, strains of mobile serotyped Salmonella classified serologically into 10 serovars circulated, out of which serovar *S. enteritidis* had the highest annual incidence. Strains isolated from the broiler flocks were classified into 18 serovars, out of which serovar *S. infantis* had the highest incidence. Strains isolated from laying hen flocks producing eggs intended for human consumption were classified into 15 serovars, out of which *S. livingstone and S. thompson* had the highest incidence. A strain of *S. gallinarum* was also isolated from a hen flock producing eggs intended for human consumption.

Conclusions

The strain of *S. gallinarum* isolated from the hen flock producing eggs intended for human consumption occurred either as a result of vertical transmission, or as a result of its spreading within the farm through people or wild birds. Several serovars were identified, considered for many years as exotic serovars.

ULTRASONOGRAPHYC CHANGES OF THE URINARY BLADDER IN DOGS` PATHOLOGIC CONDITIONS

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Introduction

In most cases, the clinical features of the urinary bladder diseases in dogs represent a professional challenge for the small animal practitioner. The ultrasound examination offer important information about the type and the degree of wall affection.

Material and methods

In bladder`s diseases diagnosis the clinical expression and dynamic commonly in many cases can be easily presumed and further imagisthique confirmed. Ultrasound evaluation was performed using linear, sector or convex probes, of normal or high frequency, on 116 cases with different bladder diseases.

Results

After performing the ultrasound examination were obtained essential information about: bladder topography, fullness degree, type of content (usually homogeneous anechoic), wall structure (parietal architecture and thickness) ant tonus. Changes in clinical features were recorded in accordance with the obtained paraclinical investigations. The ultrasound diagnosis allows to identify and to appreciate the parietal elements, and any changes, especially correlated with the uniform/non-uniform thickening, easy to be diagnosed, in accordance with the position, echostructure or echogenicity changes.

Conclusions

In urinary bladder`s diseases, the presence and the degree of micturition disturbances, in correlation with the urine abnormalities, allows in accordance with the registered local/general changes to diagnose the urinary bladder disease. The ultrasound examination, confirms the presumed diagnosis, regarding to the accurate results about the bladder topography, distension degree, the type and the quantity of the content (corpuscular elements in suspension and/or in sediment, stones, clots), the parietal tonus, wall thickness, the uniformity and the ratio of the parietal constituents. The advantages offered by the accuracy and the non-invasive character of the ultrasound examination, recommend it as a valuable complementary method of diagnosis for the urinary bladder changes in dog.

CRITICAL POINTS IN CLINICAL AND THERAPEUTICAL APROACHING OF THE NON-CARDIOGENIC PULMONARY EDEMA IN SMALL ANIMALS

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Introduction

The non-cardiogenic severe edema develops in spite of normal or low left ventricular filling pressure, in conjunction with the alveolar and/or pulmonary endothelial damage, followed by in excess accumulation of extra vascular lung fluid, leading to alveolar edema and respiratory insufficiency. After clinical evaluations the therapeutically approaching involves the reducing of the pulmonary capillary wedge pressure effectively.

Material and methods

In order to establish the diagnosis we`ve followed the classical protocol in approaching the case history, previous episodes of pulmonary edema, the use of any medicines, in addition with physical examination (manifestations of dyspnea, signs of hypoxia and fluids in the lungs), followed by paraclinical investigations (laboratory tests and image examinations) in order to assess respiratory, cardiac and renal deficiencies. These approaching were performed on 11 patients (8 dogs and 3 cats), with different types and degree of non-cardiogenic pulmonary edema.

Results and disscution

The clinical features were dominated by obvious dyspneea (with shortness of breathing), coughing, pale skin and cyanosis of the mucous membranes, inspiratory and expiratory bronchial/alveolar rales, with acute appearance. The Rx evaluations reveal alveolar edema, which appears as disseminated opacities tending to confluence (the interstitial edema observed as peripheral septal lines). For therapeutically approaching of non-cardiogenic pulmonary edema in small animals, the inducing injuries and medical context are essentials.

Conclusions

The non-cardiogenic pulmonary edema in small animals can be apreciated as respiratory emergencies of acute life-threatening condition, the therapeutic measures should be applied immediately. Curative measures must be applied immediately in order to support the gas exchange, pulmonary circulation and lung mechanics. The therapy starts with oxygen therapy, followed by reducing the preload of the heart (intravenous loop diuretics: Furosemide, initially at 2-8 mg/kg, at every 1-2 hours), bronchodylators (intravenous aminophylline at 10 mg/kg), sedatives for reducing the oxygen consumption (acepromazine 0, 5-1 mg/kg).

THE CYTOSTATIC DISEASE CONSECUTIVE TO CHEMOTHERAPY IN THE ONCOPATHOLOGY OF PET ANIMALS

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Introduction

The cytostatic medication is one of the most important ways to inhibit tumor cell proliferation and suppress the immune response at the same time. This therapy is mandatory and required in both pre- and postoperative cancer cases with relatively low adverse effects only if in compliance with therapeutic doses. The cytostatic disease is a complex syndrome defined as morphofunctional alterations of various organs and organ systems affected during polychimioterapiei. Knowledge of these phenomena is necessary to avoid cumulative effects with paraneoplastic syndromes that overlap the clinical picture of the chemotherapy disease.

Materials and Methods

The intratumoral anticancer therapy is administered in the neoformation vessels of superficial solid tumors. The intraperitoneal or intrathoracic treatment aproach is used for mesothelioma or organ tumors. The support treatment is also given intravenous. Biochemical analysis performed before and after treatment revealed an improvement in the patients' health, without the high level of chemotoxicity brought on by cytostatic medicine overlapping the patient's poor health.

Results

We have explored original ways of drug administration for pacients with grave paraneoplatic syndrome manifestations in which the classical intravenous approach would have been too risky. Our observations may compete to determine: individual doses, the selected time elapsed between doses and the avoidance of overlapping or cummulation of toxicity for each chemotherapy drug in normal tissues.

Conclusions

Cytotoxic lesion changes are reversible at therapeutic doses. Alterations that are part of the cytostatic disease should be mandatory considered along with the paraneoplastic phenomena of which gravity is graded according to clinical staging of the tumor.

IATROPATHIC DISEASES INDUCED BY WRONGLY ADMINISTERED CHEMOTHERAPY

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Introduction

The purpose of this paper is to highlight the phenomena induced by wrongly administered chemotherapy called perivenous tissue necrobiosis (Doxorubicin and Vinca Rosa alkaloids - Vincristine, Vinblastine), and to show the proper administration of chemotherapy according to the mechanism of action - strictly intravenously, intraperitoneally, by swallowing pills or in the neoformation vessels of solid superficial tumors

Materials and Methods

Cytostatic agents administration must be done as followed: puncture the vein with a catheter (pay attention to cytostatic drugs incompatible with polyvinyl chloride) and by "washing the blood vessel". First of all the doctor must check the vein permanently and check if the catheter is still in the vein by repeatedly aspirating blood in the catheter tube. After the chemotherapy had been administered, a lavage is performed again with 10 to 20 ml of sterile saline.

Results

Some anti-cancer chemotherapeutic agents such as ifosfamide, cyclophosphamide, 5-fluorouracil, Streptozocin, consecutive extravasation causes only local irritation - reversible effects. The treatment for extravasation of vesicant cytotoxic drugs in perivenous tissue is a specific antidote administered for each chemotherapy drug in the subcutaneous tissue, for the Vinca alkaloids: Vincristine, Vinblastine apply warm local compresses, 150U/ml hyaluronidase is injected subcutaneously 1ml iv for every 1ml. extravasated and Hyaluronidase ointment for external use, in case of the extravasation of Doxorubicin and other anthracyclines apply Hydrocortisone ointment locally.

Conclusions

Local cytotoxicity and proteolytic phenomena at the injection site are common side effects of chemotherapy if the protocol is not strictly followed. Local irritant action is determined by perivenous extravasation or administration by routes other than the specific ones of vesicant anticancer agents or irritants. They cause reversible pathological tissue phenomena in case of irritating agents - the initial appearance of redness, swelling, pain – or, irreversible phenomena made by vesicants such as phlebitis, periphlebitis and even necrosis as seen in the skin in local applications or in the endovenous or serous.

DIFFERENTIAL DIAGNOSIS AND MULTIMODAL THERAPY IN THE NEOPLASTIC DISEASES OF THE PROSTATE IN DOGS

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Introduction

The aim of our work is to provide information on the clinical stages of evolution, identifying direct and indirect specific tumor markers that enable early diagnosis of prostate cancer. By using multiple methods we attempt early diagnosis, which has beneficial consequences regarding the early diagnosis, curable therapy with a prolongation of survival and increased comfort.

Materials and Methods

Our studies with dogs have shown that prostate tumors occur mainly in medium and large breeds, aged 8-10 years, with a tendency to decrease. Castration at a young age has an effect on preventing the tumor growth, which is dependent on excessive hormonal stimulation but has no effect after the malignancy debut. This type of cancer is fundamentally different regarding dogs t and humans, where the disease is completely androgen dependent and hormonal stimulus removal (castration and treatment) or estrogen use increases to 60-70% survival expectancy. The study also revealed another aspect: the risk of developing prostate cancer in dogs that haven`t been neutered is higher than those neutered. The most common type of cancer in dogs is the prostate adenocarcinoma. Other cancers that can be encountered are: scvamo-cell carcinoma, transitional cell carcinoma; leimiosarcoma, undifferentiated carcinoma

Results

Increased incidence of prostate cancer is caused by exposure to domestic risk factors (consecutive repeat administration of synthetic hormonal contraceptives, weak immune system, genetic, hereditary) and external (viruses, radiation exposure, pollution, inhalation or ingestion of toxic substances) and changes in the pet food. Multidisciplinary diagnosis is based on laboratory tests: ultrasound, urinalysis, cytology, contrast X-ray, aspiration puncture or trans-perineal echography, hematology and especially blood biochemistry detect specific tumor markers, namely acid phosphatase, PSA (prostate specific antigen) and fibrinogen.

Conclusions

Screening for early diagnosis and treatment of various diseases, from chronic inflammatory lesions (prostatitis, prostatic cysts, etc) can prevent or block the malignancy process or allow the detection of early stages with decreasing tumor metastasis and reduce the chances of suffering for the patients.

ANATOMICAL AND METABOLIC CHANGES INDUCED IN EXPERIMENTAL ANIMALS BY CYTOSTATIC THERAPY

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Introduction

The purpose of the paper is to determine optimal doses of chemotherapy, which is minimum toxicity for the organism and maximum therapeutic effect. Metabolic peculiarities are specific to each species of animals, for example rats have an increased resistance to certain anticancer drugs, such as anthracyclines. Myocardial lesions in the same cumulative anthracycline doses are less pronounced than in mice.

Materials and Method

Normal Wistar rats were used (noninbred), grouped into three. Each group received a type of cytostatic drug, Cyclophosphamide (cyclic dependent agent), 5-Fluorouracil (antimetabolite) and Farmarubicin as a phase dependent agent. After a controlled period of time after the administration of the chemotherapy, organ samples were taken, and were subjected to histopathological examination.

Results

Following the administration of the Cyclophosphamide, histopathological aspects of the liver have shown: mega erythrocitary elements, anisokariosys, Kupffer cell hyperplasia, scraps of microislets of hematopoietic, discrete phenomena of dystrophic hepatocytes; the kidney: renal glomeruli with denudation of the epithelium and renal tubular necrosis consecutive of the elimination of the cyclophosphamide through the kidneys, acute glomerulonephritis, glomeruli hyperplasia or acute edema with subsequent stasis. Intraperitoneal inoculation of 5-fluorouracil induced hepatic congestion, initiation of autophagy and necrobiosys, intense Kupfferiană hyperplasia and severe dystrophic lesions of hepatocytes. Renal: Interstitial nephritis, stasis and edema, proliferative glomeruli with Bowman type synechia Farmarubicin caused serious damage: acute hepatitis, tubular nephrosis, peripheral blood leukopenia, seminal necrosis and muscle necrobiosis in myocardial fibers – cardiotoxicity.

Conclusions

To prevent the occurrence of chemo resistance there have been used relatively high doses of cytostatic medicine in clinical oncology therapy, but also the therapy is designed to allow regeneration of damaged cellular components, especially blood-forming.

STUDIES ON THE DIAGNOSIS AND TREATMENT OF SOME URINARY BLADDER DISORDERS IN DOG

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Introduction
Urinary bladder diseases are among the most common disorders met in pet carnivores, having as causes bladder infections, urolithiasis, tumors or even congenital causes. The purpose of this study was to corroborate the results of urinary bladder ultrasound examination with clinical and paraclinical examination in order to confirm the diagnosis and apply an efficient treatment.
Materials and Methods
Clinical investigations consisted of inspection and transabdominal palpation of the urinary bladder, rectal thermometry and physical (smell, color and transparency) and biochemical examination of the urine. In some patients, to complete physical examination and confirmation of diagnosis, there were performed hematological and ultrasound examinations. For an optimal therapeutic conduct for each condition under study, clinical examination results were corroborated with those of laboratory tests.
Results
The treatment in urinary bladder diseases in dogs included in the study (n = 20) were aimed to combat infection, to manage the pain, to achieve good diuresis, and, where applicable, to control the hemorrhage. By using quinolone therapy in acute cystitis over a period of 3-7 days, clinical signs were amended in a significant percentage. In case of urolithiasis, conservative therapy was used, by administration of substances that act directly by destroying urinary stones or by changing the pH of urine. In this case, dissolution of urinary stones and the prevention of their recurrence were achieved only for magnesium ammonium phosphate stones (struvites), and not for oxalates.
Conclusion
To confirm the diagnosis and determine a fair and efficient conduct therapy in dogs with urinary bladder disorders, anamnesis data should be read in conjunction with the clinical data and the results of hematological and ultrasound examinations.

STUDIES ON THE DIAGNOSIS AND TREATMENT OF MAMMARY TUMORS IN CAT

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Introduction

Cytostatic chemotherapy is a mean of fighting cancer using natural, semi-synthetic or synthetic chemical substances with genetic and metabolic effects on all cells of the organism, but especially on malignant ones, which, due to the more active cell cycle, incorporate larger quantities of drugs. This study was to establish a certainty diagnosis of mammary tumors in four cats, which allowed the administration of appropriate therapy.

Materials and Methods

The diagnosis was made based on clinical and paraclinical tests, represented by anatomopathological, histopathological, biochemical and hematological exams. Based on the results, it was determined the type of tumor and it was assessed its extent. Multi-disciplinary therapy included neoadjuvant cytostatic chemotherapy, surgical exeresis, adjuvant cytostatic chemotherapy, immunotherapy and hormonotherapy.

Results

Based on the performed tests, in two cases the diagnosis was simple papillary mammary carcinoma, while the other two cats presented more advanced stages, with possible liver metastases and paraneoplastic syndromes. Consecutive the instituted therapy, the first two cats had a good physiological condition, without paraneoplastic syndromes, while the other two patients had not a favorable evolution.

Conclusion

Mammary tumors in cats show a gradual evolution, the diagnosis and therapy being strictly individualized for each TNM stage.

IRIS MELANOMA IN CATS

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Introduction

Iris melanoma is a primary intraocular tumor with a high potential risc for metastasis, characterized by the presence of a single or a multiple hyperpigmentation focal areas, or diffuse hyperpigmentation of the anterior epithelium of the iris. This hyperpigmentation is due to an abnormal growth and proliferation of melanocytes. However, not any hyperpigmentation should be handled as a melanom, is required differential diagnosis with melanosis, iris nevi, iris cysts, iridal discoloration due to inflammation, or melanosis secondary to chronic inflammation process. Depending of the expanding and the size of the tumor, it may cause complications as glaucoma and uveitis.

Materials and Methods

In the Clinics Department of Surgery from the Faculty of Veterinary Medicine Bucharest, two Russian Blue males had been examined and diagnosticated with iris melanosis. Periodical ophthalmic examinations highlighted the transformation of the hyperpigmentation area into tumoral, nodular formations which spreads and blocks the iridocorneal filtration angle. Evolution of the cases was different, five months, respectively two years. The patients had been operated (ocular globe enucleation) and cytology and histopathology exams were performed from the excised eye.

Results and Conclusions

The diagnostic in iris melanoma is estabilished after a complete ophthalmic examination (ophthalmoscopy, tonometry and eye ultrasound). Ocular globe enucleation, despite the metastasis risk, represents the only treatment option that can be considered.

MANAGEMENT OF DACRYOCYSTITIS IN A RABBIT

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Introduction

The rabbit's anatomy of the nasolacrimal system is unique, with a single lacrimal punctum and a very tortuous nasolacrimal duct. The inflammation of the nasolacrimal duct, dacryocystitis, is a very common condition in this species and must be differentiated from the infectious conjunctivitis because of the similar clinical signs. Dacryocystitis may occur due to the nasolacrimal duct obstruction secondary to dental diseases or infections with accumulation of purulent thick material. Further investigations to attempt a diagnostic usually require general anesthesia, sometimes been performed only to prove the owner the difficulty of treating this condition.

Materials and Methods

A 5 year-old Angora rabbit was presented for ophthalmic examination, the owner complaining about the aspect of the ocular discharge in both eyes. Full ophthalmic examinations records, bacteriological samplings and ways of treatments are available. Possible causes, treatment, prognosis and risk of recurrences are discussed.

Results and Conclusion

The ophthalmic examination of both eyes showed epiphora, marked palpebral oedema, periocular white creamy discharge that could also be expressed from the lacrimal punctum by applying pressure on the medial canthus. The nasolacrimal duct was obstructed as the flushing solution didn't pass the duct. Repeated bacteriological samplings were performed with different results each time, and a treatment was initiated based on the antibiograms. The difficulty of treatment and the risk of reccurence were considered. A treatment of regular irrigation of the nasolacrimal duct associated with aceytlcysteine nebulization therapy to allow better penetration of the antibiotics was chosen as an appropriate management in this case.

SEROSURVEILLANCE OF *NEOSPORA CANINUM* IN FARM AND COURTYARD CATTLE

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Introduction

Neospora caninum is an apicomplexan parasite related to *Toxoplasma gondii,* well known as an important cause of abortion in cattle. In live animals the routine diagnostic of infection is detection of anti-*N. caninum* antibodies in serum.

This study aimed to investigate the exposure to *N. caninum* infection in cattle from south area of Romania, and to survey the seroprevalence in some herds.

Materials and Methods

A total of 542 sera from dairy cattle (16 herds in 9 counties) were sampled at different intervals. In the first sampling only farm animals were included, but in the second sampling courtyard cattle were added (n=47). Anti-*N. caninum* antibodies were detected using an indirect ELISA test.

Results and Conclusion

Anti-*N. caninum* antibodies were found in all herds. A total of 189 samples (34.9%, $CI_{95\%}$=30.85-39.05) were positive, with 104/258 (40.3%, $CI_{95\%}$=43.27-46.58) in the first sampling and 85/284 (29.9%, $CI_{95\%}$=24.66-35.63) in the second sampling (p=0.012). The highest rate of infection was in Ilfov County, with 69/139 infected animals (49.6%). Prevalence increased with age (p>0.05) and abortions were more frequent in seropozitive caws (9/74, 12.2%) than in seronegative ones (5/83, 6%) (p>0.05). Seroprevalence was significantly higher (p=0.0001) in farm (37.2%, 184/495) than in courtyard cattle (10.6%, 5/47). At the second investigation in the same farms prevalence decreased significantly (p=0.037), compared with the first one (35.1%, 46/131 vs. 49.4%, 44/89).

N. caninum infection is widespread in dairy farms from the studied area and may be a cause of abortion in some herds. The prevalence decreased at the second investigation in the same farms.

Acknowledgements

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PRELIMINARY DATA IN COMPARATIVE SERODIAGNOSTIC OF *NEOSPORA CANINUM* IN DOGS

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Introduction

For serological investigation of *N. caninum* infection in dogs more tests are available, including indirect fluorescent antibody test (IFAT), often considered as the reference test, and enzyme-linked immunosorbent assay (ELISA).

Materials and Methods

A total of 28 dogs were screened with a commercially multi-species indirect ELISA, including a subset of 9 samples previously tested by IFAT 1:50. A partial correlation was attempted between the two tests at the cutoff recommended by the manufacturer.

Results and Conclusion

Seroprevalence on ELISA was 10.7% (3/28, $CI_{95\%}$=2.26-28.23), and all positive samples were also positive on IFAT. From previously tested samples by IFAT (8 positive and one negative), only 4 samples had the same result by ELISA (3 positive and one negative sample) and one sample was doubtful. Regarding the double tested samples, a poor agreement was found between the two tests (k=0.135) and difference between the prevalence obtained by the two techniques was statistically significant (p=0.05). Sensitivity and specificity were not determined because of the low number of samples tested so far, but is already planned in an outgoing experiment, as well as testing *Neospora* IFAT positive samples for *Toxoplasma*, to exclude false positive results.

It seems that IFAT is more appropriate than indirect ELISA for seroprevalence studies, and use of this indirect ELISA may require some techniques for adjustment of misclassifications.

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PRRS DIAGNOSIS OBTAINED BY ELISA METHOD IN PROFFESIONAL AND HOUSEHOLD BREEDING UNITS FROM BRAILA

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Introduction

Porcine Reproductive and Respiratory Syndrome (PRRS) is an infectious disease produced by a virus and it is characteristic to swine. The disease produces important economic demages by reproduction and breathing problemes and with expensive cost by prevention and control of spreading.

Materials and Methods

This paper shows the results obtained using serological examination by ELISA method in big proffesional breeding swine units compared with household breeding swine units from Braila.

Results and Conclusions

In the blood samples taken from different categories was observed a high incidence of antibodies PRRS to the swine growth in proffesional units compared with the results from swine growth in household units where the antibodies against PRRS were not presents.

In literature antibodies and virus detection may be a surprise because the clinical signs are not always present.

THE CHARACTERISTICS OF LAMENESS IN DAIRY COWS

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Always observe cow walking on level concrete in order to detect lameness. A cow has to be extremely lame before it is noticeable on sawdust or strawbedded. Observe the observable.
Farmers significantly underestimate the level of lameness in their herds; about 1 in 5 lame cows go undetected. Cow are quite tolerant of pain; teherefore, the causal lesion can reach an advanced stage before it is detected . If cows can be treated in the early stages of lameness, the chances for a successful treatment without severe damage, reduced performance, and economical loss, the loss to the farmer will be improved.

PREVALENCE OF CRYPTOSPORIDIOSIS IN CATTLE IN ERZURUM REGION OF TURKEY

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Introduction
Cryptosporidiosis, a zoonotic protozoan disease, seen in many vertebrate species and can be fatal for especially calves, lambs and goat kids. The aim of this study was to detect the prevalence of cryptosporidiosis in cattle in Erzurum district.
Materials and Methods
A total of 1492 fecal samples were collected from cattle in different localities of Erzurum province from April 2010 through October 2010. Three modern (226 calves ≤ 1 month, 674 cattle > 1 month) and two village type (114 calves ≤ 1 month, 478 cattle > 1 month) farms were choosen. In order to reveal the presence of *Cryptosporidium sp* in feces, methods of carbol fuchsin staining and nested PCR were employed.
Results
According to carbol fuchsin staining results 5 (4.4 %) of 114 calves feces were found to be positive in regards to *Cryptosporidium sp* oocysts at village type farms whereas 1 (0.4 %) of 226 calves were positive at modern type farms. Results of nested PCR showed a total of 12 positive amplifications; 9 (7.9 %) were from calves ≤ 1 month from village type farms and 3 (1.3 %) were from calves ≤ 1 month from modern type farms.

Conclusion
The prevalence of cryptosporidiosis in Turkey varies between 7-63.3 % on calves. However, our research reveals that the disease shows a prevalence of 0.8 % (12/1492) in Erzurum region. Cryptosporidiosis draw attention espacially at warm and rainy seasons and our results could be related with the seasonal dynamics of the Erzurum region.

ASSESMENT OF SERUM PROTEIN AND LIPID COMPOSITION IN CATTLE WITH *FASCIOLA HEPATICA*

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Introduction

Fasciola hepatica, also known as the common liver fluke, is a parasitic flatworm that infects the livers of various mammals, including humans. *F. hepatica* is distributed worldwide, and causes great economic losses in sheep and cattle. Because of its size and economic importance, it has been the subject of many scientific investigations and may be the best known of any trematode species. Specific diagnosis depends on finding eggs in the stool or detect anti-hepatica antibodies and/or hepatica antigens in the serum.

Juvenile parasites cause little damage by penetrating the intestinal wall and the capsule surrounding the liver but much necrosis results from migration of flukes through the liver parenchyma. The liver plays a major role in metabolism including protein and lipid metabolism.

Material and Methods

In this work, blood samples were collected from 12 *F. hepatica* uninfested-healthy (Ab-, Ag-, Sediment-) and 12 *F. hepatica* infested cattle (Ab+, Ag+, Sediment+). Serum protein and serum lipid compositions analysed with SDS-PAGE and HPTLC respectively.

Results

Data showed that total protein concentration of healthy group was 6,49 g/dl while *F. hepatica* positive group was 5,47 g/dl ($p<0.001$). Moreover, the comparation of percentages of serum lipid constituents in total lipid of healthy group to infested group were 38,15 vs 44,01 ($p<0.001$) for hydrocarbon; 3,88 vs 3,06($p<0.001$) for free fatty acids; 8,58 vs 6,23($p<0.001$) for colesterol and 10,27 vs 8,68 ($p<0.001$) for polar lipid.

Conclusion

Both serum protein and lipid profile of cattle can be used for the support of the other diagnostic methods in the diagnosis of the fasciolosis.

A CASE OF A 2 YEAR ADOPTED DSH CAT WITH ACUTE ABDOMINAL TRAUMA, POST-RISCKETS SKELETAL ABNORMALITIES AND UNILATERAL RENAL HYPOPLASIA

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Introduction

This is the case of a 2 year old DSH presented on 25.09.2012 with acute abdominal trauma after a road accident. The cat is in post-traumatic shock and after shock therapy is submitted for further investigations. From the owner questioning one can find out that the cat was castrated a year ago. There is no ascendency information as the cat was adopted from the street while a kitten.

Materials and Methods

During investigations, abdominal ultrasound scan, whole body plane and contrast radiography, abdominal exploratory surgery, one can find different, unrelated pathology and stunning abnormalities which remained undetected and with no clinical presentation until now. All investigations follow a step-by-step protocol in order to further discover and assess hidden pathology. There is described a parallel of the ultrasound, plane/contrast radiology and the macroscopic aspect of the renal abnormalities.

Results

In this case presentation, one will surprisingly find abdominal hemorrhage and hematoma, urinary bladder injury, skeletal abnormalities after rickets, unilateral renal hypoplasia. This is a surprise case and reveals the importance of emergency imaging scan means but at the same time it also reveals shocking discoveries about developmental abnormalities that can remain undetected even after usual abdominal procedures and regular clinical examinations.

Conclusion

Step-by-step and complete abdominal scan and whole body radiography can reveal not only physical injuries in the post-traumatic emergency patient but also unrelated and previously undetected pathology. Considering past discoveries I can suggest that renal hypoplasia is one condition that is not uncommon in cats.

COMPARATIVE MEDICINE – A NEW FIELD OF MEDICAL SCIENCES

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The need and importance of comparative medicine development as a new field of medical sciences, is demonstrated by the authors. The term of comparative medicine was first mentioned by the Romanian Apostol Arsaky in 1813 in his doctoral thesis on anatomy at the Faculty of Medicine in Munchen, thesis presented by Mr. Acad, C-tin Balaceanu Stolnici. Therefore we consider that comparative medicine represents the result of an interaction among human medicine, veterinary medicine, environmental medicine, medical biotechnology and bioeconomy,

Comparative medicine priorities are highlighted by the authors, inferring the benefit-cost relation as well.

CLINICAL AND PARACLINICAL CHANGES IN CUSHING`S SYNDROME IN DOGS

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Introduction

In dogs` adrenal pathology is dominated by Cushing syndrome, mostly by iatrogenic origin or neoplasic glandular lesions. In such cases if clinical are suspected, adrenal evaluation of morphological parameters is relatively accessible, using the ultrasound technique and functionally by dosing cortisol, basal, or using specific tests (ACTH stimulation / suppression with dexamethasone).

Material and Methods

Clinical evaluation were performed following the classic screening protocol and additional hematological and biochemical investigations (liver/kidneys function), hormonal determinations (basal cortisol or after stimulation tests, i.e. suppression) and ultrasound exams. In Cushing's syndrome (hyperadrenocorticism), adrenal impairment is accompanied by morphological and eco-structural alterations, appreciable ultrasound method that ranks priority in terms of relevance and specificity. Adrenals ultrasound was performed using high frequency transducers (8 -18 MHz). In our study were included 16 dogs with hyperadrenocorticism.

Results

From clinical point of view the main registered clinical signs were bulimia, polyuria-polydipsia syndrome, abdominal ptosis, hepatomegaly, calcinosis and/or cutaneous hyper pigmentation, bilateral symmetrical alopecia). The biochemical blood profile registered changes (increased ALT and AST activity, hyperlipidemia, decreased serum urea levels, hyperglycemia) and urinary (diluted urine, proteinuria). Ultrasound reveals in case of affected adrenal glands appears as distinct structures, flattened shape, appearance lobe, located cranio-medial kidney, caudal of the mesenteric and celiac artery and cranial of the renal artery and the right (lower) prior to renal vein and cranial right kidney.

Conclusions

According to their topography, size and structure the ultrasound changes were very useful for the diagnosis of the diseases related to adrenomegaly and changing their echogenicity and echostructure. When can be visualized both adrenal glands, and their size is relative similar, the most probably can be the expression of the hyperadrenocorticism, and when their size, echostructure and echogenicity is very different, the diagnosis with a high degree of accuracy.- is adrenal tumor.

PART STUDY ON PROTEIN AND MINERAL PROFILE ENERGO-POSPARTAL DURING THE DAIRY ROMANIAN SPOTTED BREED

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Most farmers today are facing data reduction in reproductive performance of dairy cows. Currently, heat detection is usually the main reason that lowers reproductive performance in cows. This is well ingrained in the consciousness of modern farmers and has become a concern for researchers and practicing veterinarians, but problems persist breeding farms where cows control is done three times a day. Solving these problems is to correct nutritional deficiencies or inbalansului. Excluding diseases and inadequate management, a closer look at nutritional program can be the key to reproductive performance in May bune.Cauza main reproductive performance reduction is nutritional in nature and is expressed by lack of energy intake.
In early lactation, cows experience a negative energy balance state, because their energy mobilization from both the feed and the body's natural reserves in order to sustain production lapte.Pentru compensate for the deficiency of energy, based on animal body fat reserves. The more energy can be given by ratio, the faster cows will escape from negative energy balance.
Investigations were performed on 20 Romanian Spotted breed cows (BR), with yields of 4,000 l milk / lactation in the private sector. In conclusion, the most important factors for maintaining normal physiological paripartală period are represented by: proper nutrition during the dry period, health compliance microclimate.

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HORMONAL STATUS PARTIAL STUDY OF DYNAMICS DURING POSTPARTAL FSH AND LH IN DAIRY COWS SPOTTED OF ROMANIAN

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Resumption of reproductive activity in early puerperium is based on a complex interrelation between the hypothalamus, pituitary, ovaries and uterus. Luteinizing hormone (LH) is the limiting factor of early resumption of ovarian activity postpartum. During pregnancy and around parturition, increased plasma levels of steroids inhibits hypothalamic-pituitary axis, resulting in lower apparent pituitary LH concentrations at the time of parturition. Immediately after birth, plasma levels of FSH and LH are low, their pulsatile release was absent. FSH release is reduced only during the first few days during peripartală. In most cows, serum FSH levels are increased in 5 days pp, FSH is not considered decisive for resumption of ovarian cyclicity after calving. Increased FSH levels will increase and hence follicle and the ovarian secretion of estradiol, leading to the appearance of the first dominant follicle at approximately 11 days of estradiol increased postpartum.Nivelul will exert a stimulatory effect (positive feedback) on the secretion of LH by the pituitary more responsive to stimulation caused by hypothalamic level. These issues were confirmed by administration of exogenous GnRH in early puerperium, an opportunity has been demonstrated that postpartum pituitary responsiveness. to GnRH action is not effective earlier than the 10th day postpartum. Although it was inhibited by near parturition, LH levels return to normal, significantly later than those of FSH, suggesting different control mechanisms for the two gonadotropins. LH concentrations are low in the first days post partum., Although there is an irregular pulsatile release of low amplitude. Because stimulation exerted by increasing concentrations of estradiol, LH levels increased in the periphery of the second and the third week postpartum, as demonstrated by increased frequency of pulsatile LH release. When compulsion frequencies both gonadotropins (LH and FSH) increase in value by at least one per hour, it becomes possible first onset of estrus. As the relationship between the ovaries and uterus endocrine (secretion of PGF) is moving towards completion when uterine involution, fertile cycles may occur in 20-25 days postpartum.

EVALUATION OF COMPUTATIONAL MODIFICATIONS IN HPTLC WITH GEL ANALYSIS SOFTWARE AND FLATBED SCANNER IN LIPID SEPARATION

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Introduction

Lipids are important constituents of all living organisms. For example phospholipids are structural components of the cell membranes, triacylglycerols serve as storage materials for energy reserve, glycolipids help to regulate cell growth, and sphingolipids are important in growth, differentiation, and apoptosis. Lipids are also important components of the human and animal diet.

Analysis of lipids such as triacylglycerols and cholesterol are routine in most clinical chemistry laboratory. However, in most cases, "lipid profile" is more significant than "lipid amount". For instance, a greater relative proportion of wax esters plus cholesteryl esters is typical in sebum of type IV hyper lipoproteinemic subjects; increased lecithin: sphingomyelin ratio in amniotic fluid is a useful indicator of respiratory distress syndrome in children. Compositional analysis of lipids possessing different chemical structures such as steroids, FA's, PL's, and acylglycerols requires specific methods and high-performance thin-layer chromatography (HPTLC) plays an important role in compositional analysis of lipids at once. However, it requires expensive equipment for quantification of lipids spots.

Material and Method

In this experiment, flatbed scanner with gel analysis software was employed to determine lipid fractions of egg yolk, with testing some modifications: optical resolution (300 *vs.* 600 dpi), lane selection method (manual *vs.* automatic), and background subtraction options (None, Lane Edge, Minimum Profile, Rubber Band, Rolling Ball, or Valley to Valley).

Result and Discussion

Data showed that using flatbed scanner with gel analysis software is economically feasible and yields reliable and reproducible results. The best chromatogram was achieved at 600 dpi resolution with no background subtraction, regardless of lane selection.

CLINICAL AND MORPHOPATHOLOGICAL ASPECTS IN ANTI-FREEZE INTOXICATION OF DOGS

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Introduction

Anti-freeze intoxication is most frequently encountered in dogs and cats after accidental consumption of the liquid emptied from car radiators. In ruminants, the intoxication can appear as a consequence of erratic contamination of grazing fields with the liquid from tractor tires. Other cases have been reported, due to erronate treatments applied to silage, when ethilenglicole is mistaken taken for formic acid, or after contaminated water consumption.

Materials and methods

Clinical and pathological investigations were performed on 6 dogs brought to the Faculty of Veterinary Medecine Iasi. The dogs were treated in the Internal Medecine and Toxicology Units; morphopathological investigations were performed in the Pathology Unit.

Results and Conclusions

Clinical examination revealed nervous symptoms with rapid onset, represented by agitation, lack of balance, progressive cortical depression with periodic convulsive seizures or epileptiform manifestations, digestive disorders (vomit and diarrhea), signs of toxic shock (hypothermia, tachycardia, rhythmic heartbeat or arythmia occurrence, weak pulse, tahypnea, cianosis and acute pulmonary congestion).

Later, acute kidney failure occurred with anuria. Biochemical examination of blood revealed hypercreatinemia (over 8mg/dl) and high uremia (over 300, reaching even 800 mg /dl). This stage presented signs of uremic gastroenteritis (bloody vomit and diarrhea) and secondary nervous disorders (tremor, convulsions and coma). Echographic examination of the kidneys revealed diffuse hyperecogenicity of the cortical, with discrete cones of shadow, suggestive for nephrocalcinosis. Death occurred in the first 12-36 hours in most of the cases, due to nervous depression, and in 2 of the cases after 4-5 days, due to acute kidney failure. Necropsic examinations were performed on the 6 bodies, with accurate registration of the lesions observed. Histopathological examination revealed severe nervous, renal, pulmonary and digestive lesions, characteristic to anti-freeze intoxication.

A CASE STUDY OF LETHAL CPV NEW VARIANTS INFECTION

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Introduction

Canine parvoviruses (CPV) include four - evolutionary closely related - generations: genotype 2 (vaccinal -1978), old variants - 2a/b (after 1980), new 2a/b variants (and simultaneously 2c - 2000) and the latest ones – 2c(a/b). These viruses cause different serious diseases, especially in young dogs, since they prefer replication in rapidly dividing cells. Generally, CPV recombination and high genetic heterogeneity is the result of super infection or co-infection with multiple strains. In the light of the importance of multi-infections as potentially source of CPV genetic diversity the present study has explored the molecular characteristics of parvovirus strains circulating in a Romanian kennel.

Materials and Methods

Two Limier breed dogs were subjected to necropsy and histopathological examination (Masson). Total DNA was separated by silica-gel membrane binding and a TaqMan reaction allowed CPV genomes classification. Isolate genotype was defined by RFLP analysis of hypervariable region of VP2 and whole NS1 ORF.

Results

Both canine cadavers presented - at the macroscopic level - strong dehydration, hemorrhagic enteritis, large mesenteric lymph nodes and gallbladder. Histhopathological observations revealed specific signs of catarrhal enteritis, lyses of intestinal villi, rare intranuclear inclusions of intestinal epithelial cells and hemorrhagic pneumonia. qPCR permitted detection of a new variant genome in all analyzed organs and RFLP analysis characterized this strain as an intermediate of new 2a/b variants.

Conclusion

The findings reported here were (a) CPV mixed infection with a true member of the new generations and (b) lack of protection after genotype 2 vaccinations. This study adds new data about the evolutionary dynamics of CPV in vaccinated dogs, confirming the CPV readaptation in its canine hosts.

PITUITARY VS PLACENTAL GONADOTROPINS ACTIVITIY IN BITCH

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Introduction

The reproductive cycle of the domestic bitch, a mono-estrous species, is characterized by a follicular phase with spontaneous ovulations, followed by a luteal phase of about 75 days, and a non-seasonal anestrus of 2-10 months. The reproductive cycle is under control of the hypothalamic-pituitary-ovarian axis.

Material and Methods

The literature reported that each FSH pulse occurs concurrently with a LH pulse, differential regulation of FSH and LH. The frequency and amplitude of the pulses of the hypothalamic peptide gonadotropin-releasing hormone (GnRH) can only partly explain this differential regulation. The specific hypothalamic FSH-releasing factor may also play a role as indicates our investigations.

Results

The ovarian hormones exert a feedback at the hypothalamic-pituitary axis, thereby also influencing, in a differential way, the secretion of LH and FSH. In addition to its role in transporting molecules between mother and fetus, the placenta is a major endocrine organ. It turns out that the placenta synthesizes a huge and diverse number of hormones and cytokines that have major influences on ovarian, uterine, mammary and fetal physiology, not to mention other endocrine systems of the mother. Several protein and peptide hormones are synthesized in placentae of various species. They have effects on the mother's endocrine system, fetal metabolism and preparation of the mother for postpartum support of her offspring. In this context, one of the most important hormones secreted by the placenta is chorionic gonadotropins. As the name implies, these hormones have the effect of stimulating the gonads, similar to the pituitary gonadotropins. The only species known to produce a placental gonadotropin are primates and equids. The human hormone is called human chorionic gonadotropin or simply hCG. This hormone is produced by fetal trophoblast cells. It binds to the luteinizing hormone receptor on cells of the corpus luteum, which prevents luteal regression. Thus, hCG serves as the signal for maternal recognition of pregnancy. Equine chorionic gonadotropin is also produced by fetal trophoblast cells. It is actually the same molecule as equine luteinizing hormone.

Conclusions

Placentar gonadotrophin administration (by serial administrations of proestrus-inducing FSH or FSH-like gonadotropin preparations including PMSG for 10 or more days). Gonadotropin administrations have varied in source, dosage, and bio-

potency, as well as in pattern and frequency of administration. PMSG administration at doses of 20 i.u./kg/day for 10 days, often causes hyper-secretion of estrogen (with potential inducing uterine dysfunction and/or uterine disease). Improved pregnancy rates occurred when PMSG was administered for only 5 days and immediately followed by HCG administration (as a proestrus-enhancing) that apparently further stimulates ovarian follicle development such that the induced proestrus progresses and spontaneously culminates in an estrus in which ovulation occurs spontaneously.

STUDIES ON THE THERAPY WITH GONADOTROPIN-RELEASING HORMONE (GnRH) AND HUMAN CHORIONIC GONADOTROPIN (hCG) IN SOME GENITAL DISORDERS IN BITCHES

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Introduction
Infertility in bitch is characterized by a variety of clinical manifestations depending on the disorders of reproductive system. The purpose of this study was to asses the efficacy of gonadotropin-releasing hormone (GnRH) and human chorionic gonadotropin (hCG) in the treatment of prolonged estrus caused by follicular cysts in bitch.

Materials and Methods
In this study, there were diagnosed 10 bitches with prolonged estrus having as etiology the presence of follicular cysts. The intensity of clinical signs was studied and vaginal smears were performed, resulting in high percentages of keratinized cells in bitches with follicular cysts. Determinations of estrogen and progesterone hormones were made, the presence of follicular cysts being suspected based on the high values of estrogen and duration of estrus.

Results
Duration of estrus signs ranged between 32-76 days, progesterone concentration was between 1.3-3.4 ng/ml, while the concentration of estrogen hormones ranged between 141.5-379.5 pg/ml. Based on the high values of estrogen hormones, the presence of keratinized cells, the duration of estrus and the age of bitch it was suspected the existence of follicular cysts. The efficacy of hormonal treatment (GnRH and/or hCG) was monitored by determining the values of estrogen and progesterone hormones, the results being correlated with the interpretation of vaginal smears and clinical manifestations. Following hormonal treatments, in 7 bitches clinical signs of estrus disappeared in 4-6 days, while 3 bitches still presented the clinical manifestations characteristic to estrus phase after the treatment.

Conclusion
Gonadotropin-releasing hormone (GnRH) and human chorionic gonadotropin (hCG) can be used in the treatment of prolonged estrus due to presence of follicular cysts in bitch.

THE PRESENCE OF *OCHRATOXINS* IN FOODERS AND FOOD PRODUCTS AN THER IMPACT ON ANIMALS AND HUMAN HEALTH

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Species of fungi: *Aspergillus and Penicillium* can produce and release, in certain circumstances of temperature, pH and humidity, secondary metabolites in fooders and food products type: *Ochratoxins* . Toxicity of *Ochratoxin* depens on the type (A,B,C), source and their dose, duration of exposure . Up to the present time has been demonstrated *nephrotoxic compounds, hepatotoxic and teratogenic* effect. *of OchratoxinA (OTA).* Due to the toxic effect of OTA the maximum level in fooder and food is subject to European legislation (Reg. CE N0 567/2006, Reg. CE 1881/2010). The aim of the paper is to highlight the value of mycotoxins type OTA in feed and foods, as an possible risk on animals and human health. The working method used for teting was ELISA. Values obtained from determinations were performed according to the legislation.

ALTERNATIVE CHEMICAL IMMOBILISATION IN A GROUP OF CAPTIVE FERAL HORSES USING A HOMEMADE REMOTE DELIVERY SYSTEM

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During a 6 months period, we managed to safely perform 102 remote chemical immobilisations on a group of 50 recently captured feral horses. For all procedures a standard combination of 25 mg detomidine, 62.5 mg tiletamine, 62.5 mg zolazepam and 10 mg butorphanol per delivered dart was used and repeated when necessary. We used 3.5 ml handmade darts delivered by an 11 mm wide improvised blowpipe. For better darting and anaesthesia induction results an additional smaller no-eye contact enclosure, was built which reduced the stress of the immobilisation procedures. Bigger and highly temperamental horses needed more than one dart to get recumbent. In most cases (78.4%) the horses had a smooth induction and awakening. The 19.6% rougher awakenings were attributed to longer anaesthesia onset and duration or to the individual horses temperament.

RESEARCH ON IDIOPATHIC STOMATITIS IN CATS

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Introduction.
In the last decade there have been great advances in the study of chronic oral inflammation impacts on the health of the whole animal body.
Materials and methods.
Clinical investigations were performed in the Surgical Clinic of FMV Iași, on 32 patients presenting characteristic symptoms.
Results and conclusions.
Secondary clinical outcomes of the research are those that revolutionizes diagnosis and treatment plan, or need treatment more than the technology itself. Gingivostomatitis have long been known, studied and systematized, but some of them have not yet been fully described and investigated as cat idiopathic gingivostomatitis. Failure diagnosis and treatment of this disease and others that are localized specifically in the oral cavity is due to the fact that dentistry is basically a new branch, implemented shortly in veterinary medicine and began to grow in treatment of pets. Treatment of this disease should be seen as a product of comparative analysis of the advantages and disadvantages involved in each case. In addition to restoring the functions of the stomatognathic apparatus, treatment raises a number of shortcomings related to threatening the integrity of various organs of the animal, to facilitate the emergence of other diseases, the sometimes high cost of treatment and, not least, the risk of its failure.

LIVER METASTASES IN MAMMARY CARCINOMA IN FEMALE DOGS

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Introduction

At female dogs, the malign tumors have metastases potential, both on lymphatic way at the regional lymphatic nodules, as well as on sanguine way, on the lungs or in distant places of the body, including liver, spleen, heart and boned system.

Materials and methods

This case study presents a half-blood female dog, 11 years old, with mammary tumors at the level of the right mammary chain (M_5) and partial mastectomy (M_3, M_4, M_5), on the left mammary chain. The clinical examination also underlined ascites, anorexia, diarrhea and severe dyspnoea. The female was undertaking several complementary examinations: ultrasound, radiology, necropsy and histopathology.

Results and Conclusions

The ultrasound examination revealed the presence of liver hypo- and hyperechogenicity. The radiological examination revealed the presence of a large sized radio-opaque area (1.5-2 cm) on the right pulmonary diaphragmatic lobe and on the left cardiac lobe an area of smaller sizes (0.5 cm). From the necropsy perspective, besides the pulmonary and hepatic lesions revealed following the complementary imagistic examinations, it was revealed the presence of both pancreatic and renal metastases. The histopathological examination from the mammary lesion revealed the presence of a malignant epithelial tumor, the diagnosis being of complex type mammary carcinoma. The histopathological examination of the liver confirms the fact that the liver metastases have the same origin as the one in the mammary chain.

GIARDIA SPP. IN CATS: POTENTIAL FACTOR OF TRANSMISSION TO HUMANS

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110 fecal samples were collected from cats in the period of January 2010 - December 2011 from Timiş and Harghita counties. Samples were collected from cats with owners (78), stray cats (6) and cats from breeders (26). Cat breeds studied were European (84), Persian (11), Siamese (7), Burmese (4) and Turkish Angora (4). Of the 110 samples, 48 came from males and 62 from females. Cats' age ranged between two months and nine years. Cats were divided into three age groups. Overall, in this study the prevalence of *Giardia* spp. was of 41.81% (46 positive of 110 samples analyzed). The prevalence of *Giardia* spp. as a single parasite was 23.63% (26 samples), and by association with other parasites was of 18.18% (20 samples), respectively. The most responsive age to *Giardia* spp. parasitism was between two months and one year 36/62 (58.06%). In this study, the prevalence of *Giardia* spp. infection in Timisoara was of 47.36% (36/76 analyzed) and in Gheorghieni 29.41% (10/34 analyzed) respectively. Stray cats are more susceptible because they have contact with feces, with the contaminated environment, but also due to stress factors. It can be observed that all cats are prone to infestation with *Giardia* spp. regardless of race, age, gender or lifestyle. There are also epidemiological data that provide evidence of zoonotic transmission of *Giardia* spp. possible between people and pets. Identifying of *Giardia* spp. in cats, parasite known as a zoonotic one, means the risk of infection to humans.

INFLUENCE OF AUTOLOGOUS PROSTATIC FLUID ADDED TO FROZEN-THAWED DOG SEMEN

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Introduction

The prostate is the only accessory gland of the uro-genital tract of the dog and prostatic fluid (PF) is practically the only component of seminal plasma. The fertilizing capacity of dog spermatozoa depends on many factors, like: motility, plasmatic membrane integrity (viability), acrosome integrity. The role of the prostatic fluid in the fertilization process is still controversial. The aim of our study was to evaluate the effect of post-thaw dilution with autologous prostatic fluid on viability, motility and acrosome status of cryopreserved dog spermatozoa.

Materials and methods

Semen was collected from 6 Beagle dogs. The sperm reach fraction was frozen with a standard extender for dog semen containing Tris, fructose, glycerol and egg yolk (TFG-EY). The third fraction of each ejaculate was collected separately, centrifuged at 1118 x g for 10 minutes and the supernatant was frozen at -18^{o}C until use. For each dog six straws were thawed: three straws were diluted 1:2 with autologous prostatic fluid, while the others were not diluted at all. Motility (CASA), viability and acrosome status (flow cytometry), morphology (Diff-Quick stain) were assessed at 5 minutes, 1 hour and 2 hours post-thaw (T_0, T_1, T_2).

Results

There were no significant differences regarding the morphology of fresh and frozen semen. The addition of prostatic fluid significantly reduced the total and progressive motility and increased the percentage of reacted acrosomes at T_0, T_1 and T_2 ($P < 0.05$).

Conclusion

Although the addition of prostatic fluid did not affect the viability and the morphology of frozen-thawed semen, it reduced the motility and increased the percentage of acrosome reactions.

FREEZING CANINE SEMEN: HOW DO WE MANAGE IT?

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Semen freezing is a method of preserving spermatozoa theoretically for an unlimited time. The freezing methods are an important tool for preserving genetic diversity of the species and in assisted reproduction technologies. The principle for semen cryopreservation is reducing temperature of sperm determines a reduction of the metabolic activity of spermatozoa that permits their storage. Although in the last decade there has been an increase in understanding the cryobiology and the factors that affect the survival of canine frozen-thawed spermatozoa, fertilizing results after insemination with frozen-thawed semen are still variable.

There are many freezing protocols described in the literature. Some methods are registered marks and require buying a francise to be used. Still, there are some common steps for all this protocols: centrifugation, dilution, balancing, packing, freezing and thawing. The quality of the semen and the methods used for storage are important for the longevity of spermatozoa.

The international exchange of canine semen and canine semen banking are governed by sanitary, ethical, legislative and administrative regulation. There are many differences between countries, even inside the European Community space. The European Veterinary Society for Small Animal Reproduction (EVSSAR) is in the process of creating a network of European vets involved in canine and feline artificial insemination and semen banking in order to facilitate the exchange of technical and scientific information.

NEOSPORA CANINUM - ASSOCIATED ABORTION IN DAIRY CATTLE OF ROMANIA

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Introduction
Neospora caninum is an apicomplexan protozoan parasite with a worldwide distribution. *N. caninum* is considered to be the major cause of abortion in cattle worldwide. A complete study regarding the identification of *N. caninum* by different methods in Romania was needed.

Materials and Methods
Samples, from nine aborted dairy cattle and their abortions, were collected from a farm settled in center of Romania. All nine aborted dairy cattle (Holstein breed) were tested by serology. From their aborted fetuses heart and brain were collected. Tissue samples were tested by PCR, histology and imunohistochemistry.

Results
Five dairy cattle were serologically positive for *N. caninum* by ELISA. The Nc-5 gene of *N. caninum* was amplified from samples of four aborted fetuses. In two fetuses immunohistochemistry showed tissue cysts and tachyzoites stained positively with the mouse anti-*N. caninum* antibodies. Histopathology revealed multifocal nonsuppurative encephalitis and myocarditis.

Conclusions
The first detection by serology in aborted cattle and PCR, histology, immunohistochemistry of *Neospora caninum* parasitic forms in the tissues of aborted bovine fetuses in Romania is reported.

VARIATIONS OF GLYCAEMIA AFTER ALFAXALONE INDUCTIONS IN RABBITS. PARTIAL RESULTS.

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Introduction

Alfaxalone is a neurosteroid with general anesthetic properties. His steroid structure, analog with progesterone, might have an influence on patient glycaemia. The aim of our study was to assess variations of glycaemia after alfaxalone induction.

Materials and Methods

For this study we used 7 female adult laboratory rabbits premedicated with fentanyl (0.0125 mg/kg) and droperidol (0.625 mg/kg) intramuscular. Alfaxan® was administered intravenously at a total dose of 3mg/kg by a constant rate infusion over 60 seconds using a syringe pump. Blood samples were drawn prior to and at 2, 4, 6, 10, 15, 20, 30 after induction by an indwelling catheter in the central auricular artery for instant blood glucose determination.

Results

Mean value of arterial blood glucose recorded was 154,36 mg/dl (81-262) with the highest peak at minute 4 after induction.

Conclusions

Glucose variation remained within normal limits with the highest value at minute 4. Other studies showed an increased in plasmatic glucose after progesterone administration. Women using the progesterone-T intrauterine device showed blood glucose increased after three hours. A study made on rats showed an increase of blood glucose 30 minutes after progesterone administration.

The theory that alfaxalone may influence plasmatic glucose have to be further studied on a higher number of animals, however is interesting the fact that in minute four after induction when rabbits suffered the most profound cardio-respiratory depression, blood glucose was at the peak. More extensive monitoring and a pharmacokinetic study are needed to comment accurately on alfaxalone effects on rabbits.

INFLUENCE OF HIGH TEMPERATURE ON REPRODUCTION IN SOWS

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Temperature is the key factor to maintain thermal homeostasis at warm-blooded animals.

High temperature is a constant factor that influences reproduction at sows,where were found disturbances in the ovary, egg, embryo and fetus. Existence of critical periods in reproductive process is more vulnerable to heat stress than others. Excessive temperature of over 25 ° C,induce sows great harm materialized in weight loss during lactation, metabolic compensation efforts, reduced fertility, lactation capacity, the extension of prolificacy and unproductive.

Is also worth mentioning that there was a decrease in voluntary food intake. Ambient temperature in the roof shelter of sows is recommended to be secured around 20 ° C, where maintenance is done in individual piggery without bedding. Where is necessary to ensure bedding, temperature may be lower.

In conclusion, the temperature has an important role in improving reproduction indicators .

PROBIOVIT PHYTOTHERAPY EFFECTS OF DIARRHEAL SYNDROMES IN PIGS

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Apiphitoterapy, branch of unconventional therapies provide health through detoxification and repair functions affected, reinstalling homeostasis of the body and its relationship with the environment. Getting Probiovit product apiphitoterapeutic of propolis and vegetal mass resulting from the process of winemaking was done by percolation battery hydroalcoholic extract in optimizing extraction parameters (time,temperature, granulation plant material, report solvent / plant material) in order to achieve optimal concentration of flavones, lectins, pectin. The preparation is a natural product derived from plants with anti-diarrheal properties. It is easy to administer at young piglets during treatment in diarrheal syndromes, hypotrepsic, and the stress of weaning piglets

PREVALENCE OF GASTROINTESTINAL PARASITES IN DOGS FROM TIMIŞ COUNTY AND THEIR RISK TO PUBLIC HEALTH

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The prevalence of gastrointestinal parasites in dogs was studied in Timiş County with special attention to those parasites that can be transmitted to human. The study was conducted during the period between octomber 2010 and octomber 2011 to determine the frequency of gastrointestinal helminths infections in dogs. From different localities a total of 253 faecal samples of dogs, pet and stray were evaluated for the presence of intestinal parasites. The prevalence of canine gastrointestinal helminths was investigated by coprological examination of faecal samples. The frequency of parasitized dogs was significantly higher, 194 (76.67%) samples were positive. The most frequently observed parasite was *Ancylostoma caninum* (47.82%) followed by *Trichocephalus vulpis* (21.73%), *Toxocara canis* (17.78%), *Uncinaria stenocephala* (13.43%), *Dipilidium caninum* (3.95%), *Strongiloides stercoralis* (1.97%), *Isospora canis* (1.18%) and *Toxascaris leonina* (0.79%). The habitat and location of it was also important for the presence of parasites. The high prevalence of gastro-intestinal helminth parasites of zoonotic potential registered in the dog population from Timiş County indicates a potential risk to human health.

HEART RATE VARIABILITY FOR ASSESSING STRESS IN COWS

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Introduction

Measurement of heart rate variability (HRV) is a non-invasive technique that can be used to investigate the functioning of autonomic nervous system, especially the balance between sympathetic and vagal activity. HRV is measured by determining the constantly changing temporal distance between succeeding heartbeats (R-R intervals).

Materials and Methods

Five lacting cows, well trained to blood sampling were challenged with an intramuscular single dose (0.5 µg/kg) of ACTH (Synacthen Depot). HRV was measured for each cow for 5 min, at 0 h (before treatment) and every 30 min for 2 h. HRV parameters were analysed in the time domain, frequency domain and nonlinear components. Blood samples (10 mL) were collected from the coccygeal vein of all cows at 0, 30, 60, 90 and 120 min, after the measurement of HRV, for serum cortisol.

Results

The heart rate of cows increased significantly ($P < 0.05$) under the influence of Synacthen administration. All computed time domain parameters declined significantly after ACTH administration. The decline of root mean square of successive differences of R-R intervals (RMSSD) was more pronounced than that for square root of variance of all R-R intervals (SDNN), after ACTH administration. The ratio low-frequency band/high-frequency band quotient (LF/HF) increased also within 30 min of administration of ACTH. The nonlinear parameter Determinism showed the highest values within 30 min after administration of ACTH. Serum cortisol concentration also increased ($P < 0.05$) within 30 min of administration in cows.

Conclusion

The nonlinear parameters were most important to indicate the level of stress in cows. HRV is a valuable physiological indicator for stress in cows.

ADRENOCORTICAL RESPONSE IN COWS AFTER INJECTION OF ADRENOCORTICOTROPIC HORMONE

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Introduction
Adrenocorticotropic hormone (ACTH) challenge test is recognized as a method for evaluating some forms of stress.
Materials and Methods
Six lacting cows, well trained to blood sampling were used for this study. Cows were randomly assigned to receive saline or an intramuscular single dose (0.5 µg/kg) of ACTH (Synacthen Depot). Blood samples (10 mL) were collected from the coccygeal blood vessels of all cows at 0 h (immediately before treatment) and every 30 min for 2 h to measure serum cortisol, glucose, creatinine and urea concentrations. Each blood collection included a separate puncture of the coccygeal blood vessels using a new needle. Respiratory frequency was measured for each cow at 0, 30, 60, 90 and 120 min.
Results
Serum cortisol concentrations of cows did not differ between treatments at the initiation of treatments; however, serum cortisol, glucose, creatinine, urea concentrations and respiratory frequency were affected by ACTH, time, and the interaction of ACTH x time.
Conclusion
Administration of ACTH increased ($P < 0.05$) serum cortisol concentration in cows within 30 min of administration, and concentrations remained increased throught the blood sampling period. Cows that received ACTH had increased ($P < 0.05$) respiratory frequency within 30 min of administration. An increase in hypothalamic pituitary-adrenocortical activity, causes the rise of blood cortisol, indicates a physiological response to different stressors.

IS THE CHROMATIC PUPILLARY RESPONSE (CPR) A "FOOTHOLD" IN THE DIAGNOSIS OF OPHTHALMOLOGICAL AND NEUROLOGICAL DISORDERS?

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Introduction

The reduction of pupil size (miosis) in response to light is the pupillary reflex. The direct pupillary light reflex refers to miosis that occurs in the stimulated eye and the consensual pupillary light reflex refers to miosis that occurs in the congener eye. The pupil's response to light stimuli of a certain intensity and wavelength is chromatic pupillary response (CPR). The purpose of this paper is to evaluate the CPR and to establish its role in the differential diagnosis of ophthalmological and neurological disorders.

Materials and methods

CPR is part of the patients' ophthalmological clinical examination protocol brought to the clinic of the Bucharest Faculty of Veterinary Medicine. These patients (dogs and cats) had one or more ophthalmological symptoms (progressive loss of vision, mydriasis, anisocoria, blindness) and/or neurological (nystagmus, torticollis, circling, ataxia, proprioceptive deficits). CPR examination was performed in the darkroom, using the IRIS-VET device.

Results and Conclusion

CPR is positive in healthy animals, represented by miosis. Negative, delayed or incomplete CPR (mydriasis) to the red light (630 nm, 200 kcd/m^2) reveals an impairment of the photoreceptor cells of the retina, lesions encountered in retinal detachments, retinal dysplasia or progressive retinal atrophy. CPR absence to the blue light (480 nm, 200 kcd/m2) provides information about the optic nerve and retinal ganglion cells. Negative CPR both to the red and blue light was present in glaucoma and optic chiasm tumors' cases.

In patient cases with neurological symptoms, secondary to strokes, brain tumors or meningitis, the different CPR of both eyes (anisocoria) directs the diagnosis to the source of the lesion.

IDENTIFYING CANINE DISTEMPER VIRUS USING MOLECULAR BIOLOGY TECHNIQUES

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Introduction

Canine Distemper Virus (CDV) produces systemic severe manifestations in carnivores, characterized by clinical polymorphism: respiratory, enteric, cutaneous and neurological signs. CDV may be identified using molecular biology techniques like RT-PCR, which allows detecting nucleic viral acids from different biological matrices originating either from animals expressing acute infection or from cerebrospinal fluid of animals with systemic and neurologic manifestations. This molecular biology method improves and completes therefore existing diagnostic methods by providing higher specificity and sensibility of the results.

Materials and Methods

Investigated biologic material was represented by conjunctival swabs from 10 animals found positive through rapid tests. Nucleic acid extraction was performed using silica-gel-membrane technology. RT-PCR protocol used in this study is based on primers which amplify a fragment of 287 nucleotides (N gene of the Ond-CDV strain at position 769-1055, GenBank access number AF014953).

Results

Initial suspicion of CDV infection was confirmed by positive RT-PCR reaction for all 10 samples. Conjunctival swabs used as biological matrices for RT-PCR reaction proved adequate, returning relevant results for viral genome identification.
All reactions were valid, showing specific lines for positive controls (extraction and amplification), as well as lack of amplification for negative controls – this fact confirms the suitability of the kit for this kind of biological matrices (conjunctival swabs) and validates the results. Also, the results validate the precision of the technique, both controls proving there was no contamination during the test. In order to distinguish the genetic regions which can be amplified for the screening of CDV genome, a further analysis of the samples using primers recommended by other authors would be necessary.

Conclusion

As a conclusion, RT-PCR test represents a suitable method for the identification of CDV. Also, CDV infection can be confirmed by RT-PCR reaction, using a proper extraction protocol for the specific matrices (conjunctival swabs) and amplifying using mentioned primers for the highly conserved region of the N gene.

MRI EXAMINATION OF THE GENITAL TRACT IN FEMALE DOGS

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Introduction
In the diagnosis of genital pathology in female dogs, in addition to clinical examination and ultrasound, it is used the most modern technique of imagistic, that is magnetic resonance imaging (MRI). This is a complex imaging method, safe and non-invasive.

Materials and Methods
The apparatus used for examinations is 1.5 Tesla (Avanto Tim Siemens-Erlangen, Germany). There were 5 female dogs examined for testing protocols used to examine the female reproductive system. Anesthesia was made in combination of acepromazine - ketamine or Domitia - ketamine. To decrease peristaltic movements and avoid motion artifacts they have been given Scobutil.

Results and Conclusion
MRI allows accurate morphological anatomical exploration of reproductive system, providing a prognosis and treatment options closer to reality. Magnetic resonance imaging is a noninvasive diagnostic method superior to basic ultrasound in female reproductive system for identifying proliferative processes. To eliminate artifacts due to breathing movements, T1 and T2 weighted examinations or are assisted by the breathing sensor which permits examination only when exhaling. For a good differential diagnosis of suspected tumor processes or secondary determinations it should be given a dye.

CLINICAL, RADIOLOGICAL AND MORPHOLOGICAL ASPECTS IN CHYLOTHORAX IN CATS – CASE STUDY

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Introduction

Chylothorax represents the acumulation of limph (chyle) within the pleural space. It results from the leakage of intestinal limph from disrupted, obstructed or abnormal thoracic lymph channels. Common causes are: thoracic duct rupture, limfangiectasia of the anterior portion of the thoracic duct due to compresion from anterior mediastinal masses on anterior vena cava, cardiac insufficiency (dirofilariasis, cardiomiopathy), hypertiroidism and anterior vena cava trombosis. Other causes are mediastinal lymfome, trauma, torsion of a lung lobe, congenital or idiopathic chylothorax.

Materials and Method

Clinical symptoms are: respiratory distress, cough, faint heart sounds, fatigue and polydipsia. When the cylothorax is old, weight loss and anorexia are present

Results

In the radiology service of FMV Iasi, during the last year (2012), 44 cases of cats with respiratory distress came to consult. All of them were radiologicaly examined, and 13 of them representing 29,5 % were diagnosed with pleural effusion. Thoracocentesis was performed on the cats and macroscopic, cytologic and microbologic exams followed.

Conclusions

Five cases were diagnosed with chilothorax. The etiological diagnostic was established: one case was trauma determined, two of them were caused by lymfosarcome, one was congenital recurent chylothorax and one was cardiac insufficiency caused chylothorax.

A STUDY REGARDING CYTOHISTOLOGICAL MODIFICATIONS OF THE EXPERIMENTAL INFECTED CHICKEN WITH WEST NILE VIRUS

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Introduction

Infection with West Nile virus is an infectious disease caused by a virus of the family Flaviviridae, which affects over 160 species of birds, 27 species of animals and human. WNV transmission cycle runs from culicids vector and its main hosts are birds, both wild and domestic. The virus is transmitted by culicids and mammals, including humans, but they are tangential hosts, from which the virus can not be resumed vectors.

Materials and methods

For this study, we have investigated the anatomical-clinical and histopathological a group of 10 birds, chickens Ross aged 90 days, Egypt 101 strain experimentally infected with West Nile virus. They took samples from the encephalon, cerebellum, small intestine, cecal bifurcation bags, liver, kidney, spleen and lung, which were fixed in neutral formalin (37% formaldehyde solution 4% PBS) for 48 hours at room temperature. Fragments of tissue dehydrated by successive passages in alcohol baths of increasing concentrations were included in Paraplast Plus paraffin, were sectioned at 5 micrometers and were colored with hematoxylin-eosin methods and trichrome method (HEA) Masson.

Results and conclusions

Cytohistopatological highlighted changes are presented in this paper. Because cytohistopatological changes are nonspecific for WVN infection, the study was continued optimization of immunohistochemical techniques to detect WNV in target organs.

BIOCOMPATIBILITY ASSESMENT OF NOVEL TITANIUM ALLOYS USING SCANNING ELECTRON MICROSCOPY

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Introduction

Porous structures are an advantageous alternative to bulk titanium for endosseous implants because the elastic modulus can be adjusted to match that of bone, thereby preventing bone retraction. In this study, novel titanium alloys were tested for their in vitro biobompatibility which was assessed using Scanning Electron Microscopy and X-Ray diffraction analysis.

Materials and Methods

Titanium alloys were obtained from the Technical Univeristy of Cluj-Napoca: Titanium / Aluminium / Neobium alloy, Titanium / Silicon Dioxide alloy, Titanium / Hidroxiapatite alloy. Alloy discs were cultured with human osteoblasts for 24 hours. The adhesion of osteoblastic cells grown on these materials was investigated in comparison with control alloy samples using a Quanta 3D FEG Scanning Electron Microscope equipped with an energy-dispersive X-ray microanalyzer (EDX).

Results

Visual Scanning Electron Microscopy assessment confirmed the osteoblastic cell adhesion on the surface of all alloys used in this study thus confirming the in vitro biocompatibility of these materials. EDX analisys identified new chemical elements compared to the control group: Oxigen, Nitrogen, Carbon the concentraction of which varied from alloy to alloy.

Conclusions

The alloys used in this study have confirmed their in vitro biocompatibility for human osteoblasts. The chemical elements identified with EDX also confirm the presence of cells of these structures and can be used to assess the aproximate quantity of the adhered cells of the alloy scaffolds.

HORNER'S SYNDROME – EYE OR NEUROLOGICAL DISEASE?

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Introduction

The interruption of sympathetic innervation at the head level is the main cause that produces the Horner's syndrome. The damage of the nerve fibres may occur: central, preganglionic (from ventral horns of the T1-T3 vertebrae to the cranial cervical ganglion) or postganglionic (from the ganglion to the eye).

Most patients were sent for an ophthalmologic examination as a result of a sudden attack, often described by owners as "closed, painful eye".

The purpose of this paper is to establish an etiologic differential diagnosis protocol in Horner's syndrome.

Materials and Methods

Patients (dogs and cats) examined in the Surgery Clinics of the Faculty of Veterinary Medicine Bucharest, during January 2010 - October 2012 were sent for an eye exam. The patients presented: enophthalmos, upper eyelid ptosis, palpebral slit reduction, third eyelid protrusion and miosis. Ophthalmologic examination was performed by direct methods (to the naked eye) and indirect methods: examination of the pupil size in the darkness, Schirmer test and fluorescein test. The internal face of the third eyelid examination was done after the surface anaesthesia using the drops of benoxicaine. For the most patients, the disease started suddenly: the animal came back from a walk and presented very painful eye with epiphora. For a few patients, the onset was sudden and no ocular pain and epiphora were mentioned.

Results and Conclusion

For the examined patients, Schirmer test showed normal values and fluorescein test was negative. Pupil reaction in the darkness was negative, with stable miosis. When examining the internal face of the eyelid, foreign bodies were not present. The etiology of this syndrome is idiopathic or secondary to media otitis, frequently subclinical.

It was achieved a differential diagnosis between Horner's syndrome and the superficial or deep corneal wounds. In these cases the fluorescein test is positive and there were highlighted foreign bodies (dry straw of grass) at the internal third eyelid.

CLINICAL AND IMAGISTIC CORRELATIONS IN PACIENTS WITH RENAL FAILURE

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Introduction

Kidneys present large vascularization, receiving almost 20% of the cardiac flow. Most renal diseases carry an important vascular component and some sistemic diseases, such as hypertension, are vascularly mediated through the juxtaglomerular sistem. All of the above make kidneys appropiate for Doppler examination, because in renal and renovascular diseases, arterial, venous and microvascular modifications are expected.

Materials and Methods

The study shown here has been carried out inside the Faculty of Veterinary Medicine Bucharest, on a number of 27 dogs and 35 cats, sedated or awake, healthy or with renal, hepatic and cardiac diseases by color Doppler ecography, pulsatory emission Doppler and color codification of Doppler signal power (angio-Doppler/vascular Doppler).

Results and Conclusions

In renal level, with high relevance in assesment of blood flow, resistance and pulsatile indexes were appreciated in renal artery, interlobar artery and arcuate artery, with high specificity in pathologic conditions (diagnosis and prognosis). Ecography evaluation has revealed in chronic renal failure values of resistivity and pulstatile indexes superior to the reference values, associated with reduction of renal size (irreversibile phenomenon) and in acute renal failure, normal values were registered regarding resistivity and pulsatile indexes (in most pacients) with a relative and unsteady increase in specific morphological indexes.

COMPARISON OF TWO IN VITRO TYPING METHODS FOR THE FELINE AB BLOOD GROUP SYSTEM

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Objective: To compare the ease of use and accuracy of 2 feline AB blood-typing methods: card agglutination (CARD) and immunochromatographic cartridge (IC).
Sample Population: All 62 anticoagulated blood samples from sick and healthy cats submitted to the Transfusion or Clinical Laboratory at the Veterinary Faculty Bucharest and private clinic Hemopet are tested with booth methods of blood group tipping, also we tested the samples submitted to establish the blood group for the cats used for breeding purpose.
Procedures: Blood samples were tested in accordance with manufacturer guidelines. Sample selection was purposely biased toward those from anaemic, type B, or type AB cats or those with autoagglutination. All blood samples were tested by use of CARD-monoclonalantibodies based, and IC-immunochromatographic based; methods. The presence of alloantibodies in all cats expressing the B antigen as detected by use of any method was also assessed.
Results: Using CARD method the following results were obtained: 54,83% (34/62) type A, 27,41% (17/62) type B and 16,12% (10/62) type AB, 1,61%(1/62) with discordant test results. By IC method the results were 54,83% (34/62) type A, 29,03% (18/62) type B and 16,12% (10/62) type AB.
Conclusions and Clinical Relevance: Comparison of CARD and IC methods results revealed that 95,2% of results were similar and only 4,8% were discordant. The samples with discordant test results originated from cats with FeLV-related anaemia, or systemic blood transmited diseases.
Current laboratory and in-vitro methods commercial presented, provide simple fast and accurate typing for the feline AB blood group system. Retyping after in-vitro typing with CARD or IC laboratory methods is recommended to confirm any type A, B or AB cats.
Acknowledgements: The test methods are offered by Agrolabo spa Italy and CYF Medical Romania. The authors thank the Hemopet Animal Blood Bank for providing samples for this study.

THE EFFICACY OF DIFFERENT ACARICIDES AGAINST THE HARD TICK *DERMACENTOR MARGINATUS* ON INFESTED SHEEP

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Introduction

Ticks (Acari: Ixodidae) are parasitic arthropods which have direct pathogenic action on the host but also they are vectors for various pathogens (viruses, bacteria, protozoa). Direct action of ticks, by blood spoliation and innoculation of specific toxins, causes decrease of productions, weakening, animal exhausting, and immunodeficiency. Extension of favorable factors that allow increasing of tick populations makes imperious necessary control programs of these acarians.

The purpose of the present study was to evaluate the efficacy of four acaricids, from different pharmacologic groups, in control of tick infestation in sheep. Additionaly, clinical specific aspects of the infestations were registered.

Materials and Methods

The study was carried out during of March – April 2012, in Colibasi village (Giurgiu county). We evaluated the therapeutic efficacy of four different acaricides: Deltamethrin (pirethroid), Amitraz (formamidine), Diazinon (organophosphate) and Ivermectine (macrocyclic lactone) on natural tick infestation in sheep. The animals (n=40) were divided in four groups (n=10/group) coresponding to the four used drugs. The first three products were used by dipping, in concentration of 0,05% for Delthametrin, 0.05% for Amitraz, 0.04% for Diazinon. Ivermectine (1%) was subcutanously injected (0.2 mg/kg). The animals were examined before and after treatment at 3, 5, 7, 14 and 21 days. The number of ticks per animal, the main elective body regions for tick attachment, and the associated lesions, were also registered.

Results and Conclusions

A total number of 1054 ticks (938 females, 116 males) were colected from infested sheep, all belonging to the *Dermacentor marginatus* species. The body areas highly infested were, in order of prevalence: the substernal area (63.6%), sides of the neck (14.2%) and the tail (7.1%). Lesions associated with tick infestation consisted of local irritations and inflammations, nodular dermatitis and microabscesses. The best acaricidal efficacy was registered for Delthametrin (79.5%, at 3 days and 100% at 5 days p.t.) and Amitraz (90.4%, 96.4% and 100% at 3, 5 and 7 days p.t.); both acaricids preserved full protection at 14 and 21 days after treatment. Ivermectin reached maximum efficacy at 7 days p.t. (92%), afterwards dropping at 79.8% at 21 days p.t.

A CASE REPORT OF CANINE DISSEMINATED HISTIOCYTIC SARCOMA WITH CUTANEOUS INVOLVEMENT

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Introduction

Histiocytic Sarcoma (HS) is an uncommon malignant tumor of histiocytic origin that occurs in dog and cat. Disseminated Histiocytic Sarcoma (DHS), is the term now used to refer to the previously described condition of malignant histiocytosis. The prognosis is extremely poor and the condition is rapidly progressive. The age at presentation ranges from 3-11 years. No sex predilection was noted. The condition has been reported in the spleen, lung, liver, lymph nodes, bone marrow, central nervous system, kidneys, skeletal muscle, stomach, bone, and adrenal glands. Cutaneous involvement is rare.

Case report

A 13-year-old spayed female, mixed breed Cocker was presented because of multiple white, firm, pruriginous, 0.2-1.5 cm in diameter skin nodules. Some of them were ulcerated or covered with crusts. The first nodules were noted one year before, in the periocular region. Despite repeated treatments with antibiotics and systemic corticosteroids the nodules continued to appear on various body regions. A round cell tumor was suspected by cytology. The deteriorating health status led to the decision for euthanasia. The necropsy revealed multiple, white areas up to 1.5 cm in diameter on tongue, liver, kidneys, spleen and myocardium. Toluidine blue staining of skin and visceral nodules invalidated the preliminary diagnosis of MCT. A final morphological diagnosis of DHS was made.

Conclusion

This report describes a rare case of canine DHS with cutaneous involvement. The clinical presentation of DHS can mimic other neoplasms, this highlighting the decisive role of histopathological examination in establishing the final diagnosis.

EMERGING AND REEMERGING DISEASES IN LIVESTOCKS

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In the two last decades, new diseases emerged or reemerged in the European livestock, with or without relation with the world animal health status.
A wide broad of diseases are the vectored one, related to the global warm, professional practices and social behavior: such as bluetongue, African horse sickness, African swine fever, Lyme disease and even new pathogens, as Schmallenberg disease, are present in some area or close to emerge.
One of those threatening disease are zoonoses too, that for they are under surveillance by GLEWS: anthrax, bovine spongiform encephalopathy (BSE), brucellosis (B. melitensis), Crimean-Congo hemorrhagic fever (CCHF), Ebola virus, Highly Pathogenic Avian Influenza (HPAI), Nipah Virus, Marburg hemorrhagic fever, Q fever, Rift valley fever (RVF), Japanese encephalitis, Venezuelan equine encephalomyelitis are targeted by the global awareness system.
More and more viruses are isolated in livestock, associated or no with clinical findings, whose importances for human health is little know or unknown.
The proposed review presents the status of these infections, triggering the epidemiological features and the pathogenic potential.

OVERVIEW OF THE EPIDEMIOLOGICAL AND MORPHOLOGICAL ASPECTS OF THE CUTANEOUS MALIGNANT EPITHELIAL TUMORS IN DOG

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Introduction

The malignant epithelial tumors (MET) are frequent and very important in the pathology of the dog's skin. The aim of the present study was to evaluate these tumors, both epidemiologically and morphologically .

Materials and Methods

During 2007-2011, a total of 3643 dogs have been specifically examined; 224 of them had MET. The specimens were obtained by fine needle aspiration (60%) and surgical biopsy (40%).

Results

During these five years, a total of 3643 dogs have been specifically examined and 1262 (34.5%) of them had cutaneous lesions, and 224 (17.7%) dogs were diagnosed with MET. The incidence of the cutaneous MET increased with a constant rate, from 12% in 2007, to 23% in 2011. No predilection of breed was observed, but the majority of the dogs were medium and large breeds. 57% were males and 43% were females. The median age of the affected dogs was 9 years. The neoplasms were located on the trunk (34%), head (32.5%), limbs (30.5), neck (3%). The attempt to correlate the incidence of the tumors with the season concluded that the majority of the diagnoses were established during spring (30.5%) with the fewest, during summer (12%).

Cytological examination was the single method for investigating 47% of the surgical samples. Sole histological examination was used for 17% of the surgical samples and 36% of the cases were diagnosed by both methods of investigation.

The most frequent MET were squamous cells carcinoma, (31%), tumors with adnexal differentiation - malignant trichoepithelioma, malignant pilomatricoma (24%) and basal cell carcinoma (21.5%), but rarely were diagnosed: sebaceous carcinoma, apocrine carcinoma, and eccrine carcinoma.

Conclusion

A constant increase of the incidence of cutaneous MET was observed in dog and the importance of cytological and histological examination was also demonstrated.

RETROSPECTIV STUDIES OF THE EPIDEMIOLOGICAL AND MORPHOLOGICAL ASPECTS OF THE CUTANEOUS MALIGNANT MESENCHYMAL TUMORS IN DOG

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Introduction
This study evaluated the epidemiological and morphological features, along with the efficiency of the cytological and histopathological diagnosis of cutaneous malignant mesenchymal tumors (MMT) in dogs.
Materials and Methods
The study included 325 dogs with cutaneous MMT presented during five years (2007 – 2011) at the Department of Pathological Anatomy of the Faculty of Veterinary Medicine Bucharest. It was intended to establish: the predisposition of race and sex, location of lesions, the incidence by years, seasons and months, and what sampling and type of investigations were used for the diagnosis.
Results
During these five years, a total of 3643 dogs with various lesions were subjected to pathological diagnosis and 1262 (34.5%) of them presented cutaneous/subcutaneous masses, of which 325 (25.7%) dogs were diagnosed with MMT. Breed predilection was not detected, but the affected dogs were mainly of medium and large breeds. Sex predilection was not apparent, both sexes being almost equally represented.
The incidence of the cutaneous MMT ranged from 14% in 2009, to 26% in 2011. The median age of the affected dogs increased from 8 years in the first 3 years, to 9 years in the last year of study. About half of the neoplasms were located on the limbs (49%). The attempt to correlate the incidence of the tumors with the season concluded that the majority of the diagnoses were established during spring (20.5%) with the fewest, during summer (12.5%). The samples were obtained by fine needle aspiration (54%) and surgical removals (46%).
The most frequent MMT were mast cell tumors, (39%), hemangiopericytoma (24%) and histiocytic tumors (12%), but rarely were diagnosed: fibrosarcoma, malignant fibrous histiocytoma and hemangiosarcoma.
Conclusion
A constant increase of the incidence of cutaneous MMT was observed and mast cell tumors, hemangiopericytoma and histiocytic tumors were the most frequent lesions.

ANATOMICAL-TOPOGRAPHIC ASPECTS AT ANIMALS AND BIRDS WITH PREDOMINANTLY SURGICAL DISEASES

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From the total amount of 122630 animals and birds consulted in the last 27 years, out of which 20006 had surgical diseases, I chose the ones that I considered significant to the above topic.

This paper aims to highlight some practical issues concerning surgical diseases on the following topographical regions: head, neck, thorax, abdomen – genital-urinary apparatus, nipples – legs.

The great diversity of clinical cases was found at cattle, horses, pigs, dogs, cats, hamsters, and birds (chickens, pigeons, parakeets, peacocks).

The conclusion is that through documentation, practical training, complete examination of the patient, persistence, dedication of the veterinary medical staff in collaboration with animal owners can save most of the ill animals.

DIROFILARIA IMMITIS: CASE REPORTS AND LITERATURE REVIEW

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Introduction

Heartworm disease (Dirofilariosis) is a common problem in many areas of the world, especially in tropical and subtropical regions. *Dirofilaria immitis* can cause severe cardio-pulmonary pathology and even death in canids and other animals. Worldwide, the geographical range of the disease has been increasing in the last 10 years. This applies to Bucharest as well where the recent years have seen a significant increase in the number of clinical cases of Dirofilariosis in dogs.

Material and Methods

10 dogs, naturally infected with *D. immitis*, were investigated in this study in the department of Parasitology of the Faculty of Veterinary Medicine from Bucharest and in some private hospitals from Bucharest. Clinical diagnosis was confirmed by identification of microfilaria in blood smears stained by May-Grumwald-Giemsa and detection of female parasite antigens by immunochromatographic tests. For some dogs parasites were also recovered from the pulmonary arteries by surgery. Radiography, echocardiography, electrocardiography and clinical pathology were also used in the study of these cases to understand better the pathology of the disease and for preadulticide evaluation of the dogs. All the dogs were treated with Melarsomine dihydrochloride (Immiticide®, Merial)(2.5 mg/kg, two injections one week apart), Aspirin, Doxycicline and Ivermectin (Ivomec, Merial). Furthermore, dogs with severe disease were treated symptomatically with Heparin, Preductal etc.

Results

All dogs infected with *D. immitis* were older than 5 years; no differences in susceptibility between the males and females were observed. No differences between breeds were observed either. 60% of the dogs were classified as class 3, 10% as class 1 and 30% as class 4. All dogs from class 2 and 3 responded well to the Melarsomine therapy.

EVALUATION OF SOME THERAPEUTIC SCHEMES IN CONTROL OF VARROOSIS ON APIARIES IN THE MOUNTAIN VALLEY FROM PRAHOVA COUNTY

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Introduction

The extension of varroosis, with worldwide distribution, epizootic character of the disease, and the associated risks for bee colonies, has been determined, in the last years, a strong mobilization of the experts for finding appropriate control strategies. The aim of the present study was to evaluate an integrated control strategy of the population of *Varroa destructor* in apiaries located in a mountain valley from Prahova County, using alternative organic acids and synthetic acaricides.

Material and Methods

The studies were conducted in three apiaries on a total of 55 colonies, for a period of 3 years. In the apiary A, a treatment of amitraz fumigation has been applied; in the apiary B was applied a treatment (by fumigation) with a product containing both tau-fluvalinate and amitraz; in the apiary C was applied the treatment of oxalic acid 4.2% solution, by dribbling among the frames over bees, followed by a control treatment with the bivalent product. The efficacy of the treatments was calculated as percentage (%), based on the number of *Varroa* mites fallen on the control sticky papers, before and after acaricides applying.

In the apiary C it was tested the efficacy of an integrated control scheme, that combines survey of biological parameters of bee colonies with treatments based on organic chemicals, known to be less polluting.

Results and Conclusions

Treatment against the mite *Varroa destructor* performed by alternating commercial products containing active substances from different groups of pesticides, like amitraz and fluvalinate, showed an efficiency of 90.03% in the apiary A, up to 92.5% in the apiary B. In the apiary C, where an integrated control program was applied, the average efficiency was 97.3%.

The results of this study highlighted that the integrated control scheme (macroscopic examination of larvae, nymphs and bees on honeycomb capacity; examining residue from the bottom of the hive; dusting of adult bees with different nontoxic substances) maintains the average infestation of *Varroa* in bee colonies at a level (1% ± 0.5%) which allows its optimal functioning for annual beekeeping.

EXTRAGENITAL LOCALISATION OF CANINE TRANSMISSIBLE VENEREAL TUMOR – CASE REPORT

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Introduction

Transmissible venereal tumor is a mesenchymal tumor recorded in dogs. This kind of tumor is specific for both gendre with genital and extragenital localisation and is transmitted by tumoral cells transplant. The aim of this paper was to present a case of TVT in dog with localisation in the oral and nasal cavity and sinuses.

Materials and Methods

An 10 years old mix breed intact dog was presented for necropsy at the Pathological Anatomical Department of Faculty of Veterinary Medicine Bucharest. In the last two years of life he presented unilateral purulent nasal discharge with lateral distortion of naso-maxillary plane. The radiologycal exam revealed osteolysis processes at the maxillary and orbital arch (lacrimal and zygomatic) level. The necropsy was correlated with the cytological exam by using May Grunwald Giemsa stain. The histological exam, using Hematoxiline Eosine stain, was performed to the tumoral tissue fragments fixed in 10% formaldehide embedded in parrafin and sectioned at 4-6 μm. Immunohistochemistry was performed on paraffin embedded sections using the vimentin, lisozyme, MHC II and cytokeratine antibody.

Results and Conlusion

This case presented an extragenital form of TVT with infiltrative features and slow evolution. Macroscopical, in the oral cavity were distinguished cauliflower-like tumoral mass which started from superior left canine tooth, continued through fistular traiect to maxillary sinus, left nasal cavity and frontal sinus. Due to maxillary bone and orbital arch (lacrcimal and zigomatic) osteolysis, a new cavity with purulent exsudat was formed. The cytological features were specific for transmissible venereal tumor. The histopathological exam revealed pattern sarcoma with round cells tumor type. The positive imunohistochemical test to vimentin and lisozyme and negative to citokeratin confirmed the histiocytic mesechymal tumor diagnosis. Also, it was analysed the growth rate of the tumor taking into account the MHC II molecules. Considering the extragenital localisation of the tumor is necessary to confirm the diagnosis by immunohistochemical investigation in order to establish the origin of tumoral cells.

HYPERTHYROIDISM IN CATS

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Introduction

Hyperthyroidism (thyrotoxicosis) is the most common endocrine disorder of the cat. It was first definitively diagnosed in 1979 and its incidence has increased dramatically since. It is unclear whether this is because it is

truly a new disease or because it is being diagnosed more frequently as a result of improved awareness, a growing cat population, increased longevity or a combination of these factors.

Materials and Methods

These cases were studied and treated at the Medical Clinic of the FMV Bucharest. For these cases, the steps in diagnosis and treatment were as following: case history, clinical exam, ultrasound, Rx ,electrocardiography, blood exam, biochemistry exam and T4 evaluation.

Results and Conclusion

Hyperthyroidism is a disease seen almost exclusively in older animals. The average age at onset is 12-13 years. Almost all are in excess of 6 years and less than 5% are younger than 10 years at the time of diagnosis. There is no apparent sex predisposition.

Classically, affected cats are presented with a history of weight loss despite an increased appetite, polyuria/polydipsia and intermittent gastrointestinal signs of vomiting and/or diarrhea. Notable findings on physical examination include tachycardia (heart rate in excess of 240beats/min) with or without an audible systolic murmur. Goiter is apparent in over 95% of affected patients.

A small proportion (<10%) of cases presents with apathetic hyperthyroidism, where anorexia and depression are the most significant features. Treatment is aimed at controlling the excessive production of the thyroid hormones either by medical inhibition of thyroid hormone synthesis, surgical removal of affected thyroid tissue or destruction through radio ablation or local ethylene glycol administration. Drugs that were used in treating hyperthyroidism were: methimazole, carbimazole, propranolol, atenolol, L-carnitine.

HYDROCEPHALUS IN DOGS

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Introduction

Anomalous conditions, such as hydrocephalus often result in early fetal or neonatal death. If animals survive birth, they may have significant alterations in consciousness and behavioral development.
Hydrocephalus can result in clinical signs due to loss of neurons or neuronal function alterations
in ICP and all of its consequences
In young dogs, prior to ossification of the cranial sutures, hydrocephalus may contribute to abnormalities of skull development such as a thinning of the bone structure, a dome-shaped or bossed appearance to the head or a persistent fontanelle.

Materials and Methods

These cases were studied and treated at the Medical Clinic of the FMV Bucharest. For these cases, the steps in diagnosis and treatment were as following: case history, clinical exam, Rx, neurological exam, blood exam and biochemistry exam.

Results and Conclusion

Dog breed predisposed to congenital hydrocephalus include the Chihuahua, Pomeranian, Yorkshire Terrier, English

Bulldog, Lhasa Apso, Toy Poodle, Cairn Terrier, Boston Terrier, Pug, Pekingese and Maltese. Many animals affected congenitally may appear to be less intelligent than normal and be difficult to house train . In addition to alterations in consciousness, circling, paresis and seizures may also be seen. Central visual dysfunction can occur with compression of the optic radiation and occipital cortex. Occasionally, when hydrocephalus is associated with fourth ventricle enlargement, there may be pronounced vestibular dysfunction.

EPIDEMIOLOGICAL RESEARCH CONCERNING THE PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME DURING 2011

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The swine from the present study confront with serious breathing and reproduction problems specific to PRRS disease.
This disease affects the immune system of pigs and has a concomitant evolution with another viral and bacterial infection.
PRRS is recognized around the world by the economical impact that it produces in swine breeding units.
It is a viral disease with endemic evolution characterized by reproduction alert signs to sows and by breathing signs to young pigs.
In most of the cases of evolution the multiple ethyology includes the following bacterium: Mycoplasma hyopneumoniae, Pasteurella multocida, Actinobacillus pleuropneumoniae and viruses: virus Aujeszky virus, porcine reproductive and respiratory syndrome, influenza virus, transmissible gastroenteritis virus and virus respiratory coronavirozei, low conditions of maintenance will overtake the protection mecanism of the body.
In this paper are presented the epidemiological researches achieved during 2011 in two proffesional swine units from Braila.

OSTEOSARCOMA IN A ROTTWEILER DOG

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Introduction

Osteosarcoma is a malignant oncological disease specific to the bone tissue whose frequency was increasingly higher in the recent years, especially in large breeds of canine. Most common location is in the metaphyseal-epiphyseal areas of the long bones; it is not reported a direct correlation between an increased frequency of osteosarcoma and the animal age.

Material and Method

The presented case is a female Rottweiller dog who came for a consultation, presenting a swelling in the left scapular-humeral region with painful reaction at deep palpation of the swelling area. At the functional clinical examination, it is not noticed lameness at rest or at hot. The clinical examination was succeeded by the radiological one, where it was seen an alternation between the bone lysis and the bone proliferation areas at the proximal metaphyseal-epiphyseal level of the left humerus. After the radiological examination, the animal was anesthetized by neuroleptanalgesic anesthesia (acepromazine = 0.3-0.5 mg per kg i.m., ketamine-dilution 1mg per 1ml 0.9% NaCl iv). After the specific anesthesia signs, it was made the bone biopsy on the anatomical correspondent of the affected area, using as a guide the radiographic film.

Results and Discussion

Cytological examination results show a cytomorphologic specific aspect of the osteoblastic osteosarcoma. The sampling of the product for the cytological examination was made by observing the basic rules of the bone biopsy, radiographically guided. The samples were taken from areas of moderate radiographical transparency and not from those of a higher radiographical transparency and opacity.

Conclusions

Osteosarcoma can be seen in large dogs. Osteosarcoma occurs most often in the metaphyseal-epiphyseal areas of the long bones. Bone aspiration biopsy is successfully performed using the radiographic guide. Material sampling for a cytological examination is taken from moderate osteolysis areas.

THE THERAPEUTIC PLAN IN EMERGENCIES AND CRITICAL CARE

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Introduction.
Identification of an emergencie is based principally on the clinical assesment of the patient. There are important clinical parametres for the stadialisation of shock, with species specific variantions. Therapeutic plan depends on the stage and type of shock.

Materials and Methods.
This study was done on 12 clinical cases. Eight of these patients were in initially decompensated shock, two in late decompensated shock and two in the compensated phase. Laboratory and imagistic findings are important for second evaluation of the patient.
These patients were found in different types of shock: two cases - traumatic, six cases - hypovolemic, two cases - septic, one- neurogenic and one - hypoxic.
The reanimation plan was based on steps assuring, in this order: A. airway, B. breathing, C. circulation, mental state, pain management.

Results.
Hypovolemic shock is installed when the organism can't assure the effective circulating volume, absolute (hemorrhages) or relative (distributive), so the goal of fluid therapy is to correct hypoperfusion, not dehidration.
Hypoxic shock required oxygen therapy, tisular hypoxic shock, a haemotranfusion; the ones caused by higher tisular consumption (status epileplicus, hyperthermia) - specific therapy.
Hypovolemic shock can be treated by two types of fluid therapy: large volume technique (end point at blood pressure of 80 – 100 mmHg = supranormal/early goal driven therapy) and small volume technique (end point at 60 – 80 mmHg = hypotensive resuscitation). The end point should be reached in about 30 minutes.

Conclusion.
The rate of success in emergencies and critical stage patients depends on the correct identification of an emergency, status of the patient, type/types of shock and application of the specific therapy in the shortest time possible.

THE IMPORTANCE OF INTRAOPERATIVE RETROBULBAR BLOCK ON ANESTHETIC MANAGEMENT OF ENUCLEATION

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Introduction

One of the major goals of anesthesia is control the pain. For far too many years the veterinary profession has considered analgesia and pain management to be of little interest with practitioners as quoted outdated aphorisms as " animals feel less pain than humans", or "pain is beneficial because it limits movement" . Now we know that all these are totally false and that pain affects life and rehabilitation of patients in a tremendous way.

The aim of this article is to clarify specific conditions that occur in anesthesia following retrobulbar block using as reference parameters : pupilar reflex and position of the eyeball, before and after the block but also the heart rate and noninvasive blood pressure.

Materials and methods

There have been used animals proposed for enucleation, excepting those whom were investigated as neoplastic processes as: penetrating corneal wounds with lack of substance, desmetocel, avulsion of the eyeball, uveitis., phthisis,etc

Results and Conclusion

Effectiveness of injection with local anesthetic (lidocaine2% and bupivacaine0.5%) into retrobulbar space following eye enucleation has shown two aspects: first one is that provides akinesia of the extraocular muscles by blocking cranial nerves II,III and IV, thereby preventing movement of the globe and providing comfort for the surgeon's technique and the second one is that requires less anesthetic substance conferring additional analgesia and reducing the need for additional intra or postoperative analgesics.

Retrobulbar block acts as a part of polymodal analgesia of intraoperative anesthetic protocol for enucleation surgeries and can greatly improve our ability to provide complete and compassionate care. Maintaining good analgesia makes practice more enjoyable for us, and definitely improves the quality of our patients' lives.

FIVE CASES OF DISCOSPONDYLITIS IN DOGS

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Introduction.
Discospondylitis is infection of the intervertebral disc space associated with osteomyelitis of locoregional vetebrae. It can be a secondary infection or from local infection in the disc space. The majority of discospondylitis are bacterial infections, even if fungal infections are possible.

Material and Methods.
Clinical sings asssociated with this diagnostic are due to spine pain. The infection may spread into the spinal cord, so neurological sings may occur (paresys, paralysis). The dogs were diagnosed by five radiographs, one CT scan, two MRI, in: one cervical region, 3 thoracic, one lumbar spine. It was done: blood and urinary culture, treatment of dental infections, identification of Brucella canis, bacterial endocarditis, foreign body migration, previous intervertebral disk trauma.

Results.
The most frecquent location was in the thoracic region. On radiographic exam shows characteristic distruction of aspects of the locoregional vertebrae. CT images were more specific, but only MRI images revealed the disk abcess and the vertebral arch inflamation.
Antibiotics effective were cephalosporins for six weeks to six months. Analgesic and non-steroidal anti-inflammatory therapy and cage rest was applied for pain control. Corticosteroid drugs are contraindicated.

Conclusion.
Conventional radiographs are an appropriate method to diagnose discospondylitis, but only after modifications of vertebral corpse occur and can't be done for disk disease. CT with 3D reconstruction is more accurate diagnostic tool. RMI investigation represent the gold standard for diagnose discospondylitis
The prognosis depends on the etiology, results of the neurologic examination and response to treatment. Even if the etiology is not identified, most dogs respond well to appropriate antibiotic therapy. Recurrence is always possible, especially in immunocompromised patients. The prognosis for patients with marked neurologic deficits is guarded.

POST-TRANSPLANTATION DISTRIBUTION OF CD44+ HUMAN MESENCHYMAL STEM CELLS IN A MOUSE MODEL

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Introduction

Mesenchymal stem cells are playing an important role in tissue engineering. Because of their properties to differentiate in multiple lineages, these cells became promising materials for the treatment of different types of degenerative disease, including bone disorders. In order to evaluate the distribution of xenogeneic MSCs engrafment, the aim of our study was the screening of this phenomen in different stages after intraperitoneal (i.p.) injection of CD44+ human MSCs in a mouse model for osteoporosis.

Materials and Methods

Human MSCs were harvested from the palatal subepithelial connective tissue. The cells were grown in DMEM/F12 (Sigma Aldrich) supplemented with 10% fetal calf serum (FCS), 100 U/ml penicillin and 100 mg/ml streptomycin. After i.p. transplantation of $1{,}1x10^6$ CD44+ hMSCs in a mouse model , the. screening of donor cells engrafment from blood samples was assessed at 4 and 11 days post-transplantation. The mice were euthanized by cervical dislocation at 14 days, followed by hMSCs engraftment assessement in blood, bone marrow and spleen samples. Results were quantified by immunophenotypic characterization with FACS Canto II flow cytometry system (BD Biosciences, San Jose, CA, USA).

Results and Conclusions

Our data confirmed the special homing characteristic of human MSCs in a mouse xenograft model. At 4 days post injection, in blood samples was found a percentage of 0,5% CD44+ cells and at 11 days, a percentage of 0,1% of CD44+ cells. At 14 days, a percentage of 0,1 % CD44+ hMSCs was found in blood as well as in bone marrow, but all spleen samples were negative.

PROTOCOLS FOR INDUCTION OF ESTRUS IN FEMALE DOG
Bibliographic Study

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The activation of estrus in a female dog is under the control of hormones secreted in specific areas of the brain. In theory, the hypotalamic hormone (Gn-RH) could be used. In turn, Gn-RH acts on another area of the brain –the pituitary gland- which then secretes other hormones called gonadotrophins-FSH (follicule-stimulating hormone) and LH (luteinizing hormone)-that act on the ovaries and lead to the development of ovarian follicles. These then synthesize female hormones (estrogen), hence initiating the onset of estrus.

MEDICAL-VETERINARY ECOPATOLOGIA CONTEXT ECOECONOMIC AND BIOECONOMIC EUROPEAN STRATEGIES AND GLOBAL IN VIEW OF THE XXI CENTURY

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Ecopathology optimization is a discipline that takes over cooperation between man and nature, with reference to diseases of the ecosystem.

Unique medicine today is based on complex disciplinarity, the indissoluble links with all branches of human and animal health, but also with all other disciplines of the life sciences that is related, or those that intersect (economics, law, chemistry, physics, etc.). With the profound changes in human life (scientific, technological proliferation, food crisis, climate change, development of information system etc.). Creating new challenges (popu-lation growth, global warming, environmental pollution, globalization), whose solution is required to the ecosystem approach and identify issues anthropogenic bio, ecoeconomy, bioethical and eco-bio-traceability throughout the chain biodiversity relationship: air-water-soil-plant-animal-food-humans to build an eco-bio-economy meant contribute to sustainable development and environmental preservation ecosanogenesis.

Environmental health and ecosystems depends mainly on man factor must reduce anthropogenic pressure. Projections for future socio-economic environment and to assess the situation and perspectives of natural resource base raises the question whether and to what extent the conditions provided for estimated future food demand can be met and how food security can be achieved. To ensure that the contribution Life sciences are able to make significant contributions to the world of tomorrow through increased productivity, welfare and environmental sustainability was organized United Nations Conference on Sustainable Development, Rio +20, Brazil, 20 to 22 June 2012 , created special programs (How to feed the world in 2050, Food Security Outlook for 2050), bodies and special teams to implement Strategies for the entire twenty-first century: "National Bioeconomy Blueprint 2012", "The Bioeconomy to 2030, Designing a policy agenda OECD", OECD is a unique forum where the governments of 30 democracies work together to address the challenges of economic, social and environmental aspects of globalization.

PRELIMINARY DATA ON SEROLOGICAL SURVEY OF EXPOSURE TO ARTHROPOD-BORNE PATHOGENS IN STRAY DOGS FROM BUCHAREST, ROMANIA

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Introduction

Canine vector-borne diseases (CVBDs) represent an important group of illnesses affecting dogs around the world. These diseases are caused by a diverse range of pathogens, which are transmitted to dogs by different arthropod vectors, including ticks and insects (fleas, mosquitoes, phlebotomine sandflies). In addition to their veterinary importance, some CVBD-causing pathogens are of major zoonotic concern, with dogs potentially serving as reservoirs and sentinels for human infections. The present study aimed at assessing the seroprevalence of some selected arthropod-borne pathogens (*Dirofilaria immitis*, *Ehrlichia canis*, *Borrelia burgdorferi sensu lato*, and *Anaplasma phagocytophilum*) in stray dogs from Bucharest's areas.

Material and methods

We evaluated the prevalence of arthropod-borne pathogens in stray dogs (n=91) from Bucharest's areas using point-of-care assays (SNAP 4DX; IDEXX Laboratories, Westbrook, ME). The SNAP 4DX detects *D. immitis* antigen and antibodies against *E. canis*, *A. phagocytophylum*, and *B. burgdorferi*. All animals displayed no clinical signs at the physical examination, therefore they were assumed as clinical healthy.

Results and Conclusion

Overall, 30.77% (28/91) of the dogs were serologically-positive to one or more of the tested pathogens. The prevalence of positive test results was as follows: *D. immitis*, 18.68% (17/91), *E. canis*, 4.00% (3/75); *A. phagocytophilum*, 16.00% (12/75). Three dogs (4.00%) were co-exposed to *D. immitis* and *A. phagocytophilum* and one (1.33%) was co-exposed to *E. canis* and *A. phagocytophilum*. There was no evidence for *Borrellia* infection.

This study provides on insight of exposure to certain pathogens infecting stray dogs in some areas of Bucharest, emphasizing high risks for CVBDs of zoonotic concern.

EXPERIMENTAL SURGERY, BASIS FOR PROVIDING ADVANCES IN HUMAN AND VETERINARY GENERAL SURGERY

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Good organization and thorough both theoretical and practical assimilation of experimental surgery are necessary in order to provide continuous advances in general surgery, both in human and veterinary medicine. The animal for experimentation provides an excellent tool to methodical practice of some new surgical procedures designed and endorsed at the highest theoretical level – awaiting the necessary practice confirmation.

This confirmation may completely cancel (100%) the virtual possible theoretical model or can possibly intersperse changes resulting from the "step by step" conducting of a "new" interventionist method whether it is classical, invasive or non-invasive.

Note as an example, the achievement in human surgery of non-invasive surgical removal of gallbladder by laparoscopic cholecystectomy, as a national premiere in the swine, experiment carried out some years ago in the Faculty of Veterinary Medicine Bucharest.

CURRENT ISSUES IN FISH CORTISOLE DOSAGE

REVIEW PAPER

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Introduction

One of the most frequently measured stress indicators in fish is cortisol. The reasons are: cortisol can accurately and rapidly be measured using commercial ELISA or RIA kits, wide variety of procedures for sampling, the plasmatic concentration tends to rise when the fish is exposed to different stressors. Briefly, when the hypothalamo-pituitary-interrenal axis is activated, the corticotropin-releasing hormone, stimulates the pituitary gland in producing the adenocorticotropic hormone, that in turn stimulates the synthesis and release of cortisol in blood by the interregnal glands, triggering the second and third stress response.

Materials and methods

Cortisol can be processed from blood, bile, whole body homogenates and water. Edward J. Branson (2008) states that the most meaningfull measurement is that obtained in the blood. Samples are obtained by heart, caudal vein/artery, or the posterior cardinal veins puncture. Pottinger et al. (1992) considers dosing cortisol in the bile, harvesting the samples by gall blader punction or removal of the entire structure. When the fish is too small, Pottinger et al. (2002) recommends measuring cortisol levels in whole-body homogenates, the fish being humanely killed before homogenisation in a suitable vehicle. Ellis T. et al. (2004) measured the cortisol concentration in water, but only for an enclosed volume of water with known inputs and outputs.

Results and conclusions

Branson (2008) states that cortisol in blood immediately reflects the secretory activity of the interrenal tissue. Pottinger (1992) demonstrated that cortisol metabolites concentration in the bile is extremely elevated in fish exposed to chronic stress. The same autor states that the whole body homogenisation method is suitable for measuring acute but also chronic stress in small fish. Ellis T (2004) got excelent information regarding the endocrine status of the fish population. In conclusion cortisol is apparently the most realiable and accessible witness of stress in fish and the possibilities of measuring it are wide.

VIROLOGICAL DIAGNOSIS IN AUJESZKY'S DISEASE

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Introduction

The purpose of this paper has been to show virological diagnosis of Aujeszky's Disease on few receptive animal species.

Material and Methods

Between years 2007 - 2012, has been examined after inoculation on cellular cultures, 35 brain samples harvested from various animal species (piglets, bovines, dogs), which shown nervous symptoms.

Has been performed inoculation on cellular cultures line PK-15 of the suspension obtained from brain homogenate, by watching appearance of the cytopathic effect, characteristic for multiplication of Aujeszky's Disease virus (ADV). Isolates has been identified with virusneutralisation on cell cultures, with specific antisera against ADV and also with molecular biology tests (RT-PCR).

On the other hand, the same samples have been tested for Rabies also, with Fluorescent Antibody Technique (FAT) and mouse inoculation.

Results

From whole 35 samples inoculated on cellular cultures, has been isolated ADV on 4 piglets, 2 bovines and 5 dogs.

All tested samples on FAT and mouse inoculation, was negative for Rabies.

Conclusion

On this paper, has been presented for the first time in our country, data regarding Aujeszky's Disease virus isolation and identification using virological methods, inclusively molecular biology techniques.

THERAPEUTICAL AND ETIOPATHOGENIC RESEARCH ON BLADDER IN DOGS

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Introduction:
Bladder with perianal localization is a rare manifestation of urine retention and urine removal consists in renal failure associated with perianal hernia. The patient has anuria, urinary tenesmas and to palpation, is often a globular formation, which soon becomes immobile and can't be reduced unilaterally, through ischio-caudal fossa.

Materials and Methods
Were studied five dogs, male, adults, of different races, with perianal hernia symptoms observed in 12 animals. Track the progress, recording symptoms, initial diagnosis, complications, surgical protocol, treatment of pre-and post-surgery.

Results
The reason for why patients came on examination in emergency was acutization of urine retention phenomena and even uremia in 2 cases. On all cases has been observed topographycal changes of the prostate which preceed bladder dislocation.
In phase of the acute urinary intoxication, clinical symptoms was alarming, tenesma frequency increased progressively and continued with uremic intoxication (depression, hypothermia, cyanosis). Locally, observed an elastic tumefaction initially and then indurated into the perianal region, in this stage, practically is impossible to perform rectal exploration or bladder catheterization and also can't reduce formation by taxis. After partially evacuation of urine by puncture, bladder can be replaced ease and this way can be done reconstruction of the anatomical plans with suture on three levels.

Conclusions
Reduce intra-bladder pression was achieved intra-operatory, except animals with uremia, to which a therapeutic priority became to rebalance homeostasis. Animals with uremia, required treatment for fluid and electrolyte balancing, detoxification, after urine transit resumption. In all cases investigated, prostatectomy and castration was performed.

THE PRURITIC DOG AND THE DIAGNOSIS OF ATOPIC DERMATITIS

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Atopic dermatitis (atopy, atopic disease) is a genetically predisposed tendency to develop Ig E antibodies to environmental allergens, resulting in a characteristic inflammatory and pruritic skin disease.

The diagnosis of canine atopic dermatitis is based on characteristic historical and clinical findings, the exclusion of other pruritic conditions and,last but not least, the intradermal skin testing.

The present study aimed to diagnose canine atopic dermatitis and identification of competitive diseases in atopic disease pathology.

The study was conducted on a group of 20 dogs, the selection of these subjects being performed on following criteria: pruritus sine materia at onset (alesional pruritus), age (3-8 years), dog living mostly indoors, glucocorticoid-responsive pruritus, nonaffected dorsolumbar area and ear margins.

Intradermal skin tests results (we used the Agroskin diagnostic kits-Agrolabo S.p.A. Italy) confirmed the diagnosis of atopic dermatitis in 18 subjects (a prevalence of 90% in the present study).

Also, among the dogs with atopic disease, were identified competitive diseases as follows: dermatophytosis- 3 subjects affected (a prevalence of 17%-within atopic dogs), Malassezia dermatitis- 5 subjects affected (a prevalence of 28%- within atopic dogs).

STUDY ON THE DIAGNOSIS AND NUTRITIONAL MANAGEMENT OF OVERWEIGHT AND OBESITY IN DOGS

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Among nutritional disorders, obesity is a pathological status; it may be temporary pshysiological, but it can easily turn into a pathological status. The etiopathogenesis and the high risk need a quick and intensive clear clinical management and recommendations for both a nutritional management and an efficient prophylactic and therapeutic strategy to adress as many pathological mechanisms involved as possible.

Worldwide, studies conducted on obesity in dogs showed that this disorder is present in about 25% of the canine population. In contrast with humans, the esthetic apects weigh less, more or less neglected and they do not count for the impact of obesity on the whole body.

This paper is a study on overweight and obesity in dogs and the correspondant nutritional management. We observed 9 dogs that were evaluated clinically; paraclinical (hematology and blood biochemistry tests) and morfological parameters and were measured as well in order to assess obesity.

Nutritional management was established by feeding a special diet and weightloss was monitored: it was gradual and there was no rebound effect.

In the end it is clear that the veterinarian should have a professional approach towards overweight and obesity in order to set a proper nutritional management, with benefits for the dog's welfare and for the owner's peace of mind.

STUDY REGARDING URINARY SISTEM DISEASES IN CATS

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Introduction

Urinary sistem diseases can carry different clinical aspects depending on the cause of the disease, affected segment, evolution rate and pacient. In the study shown here, a number of results are presented, regarding diagnosis, evolution and therapy of urinary sistem diseases in cats inside a private clinic.

Material and method

Inside Agervet-Târgovişte clinic, along 2012, a number of 198 cats, from different breeds, have been recorded with urinary sistem diseases. The methods of assesment were physical examination, radiography, abdominal ecography, catetherisation and urine examination. Diagnosis has been established on a clinical sign basis and results from complementary examination.

Results

The clinical component in urinary sistem diseases in cats has been represented by a large array of signs. Following the data analysis for every pacient, it has been shown that 62 (35.96%) cats presented acute signs of disease and 136 (64.04%) cats had developed chronic signs of disease. 36.87% affected the upper urinary tract and 63.13% were present in the lower urinary tract. In 91 cats, urethral probing was neccesary for urine clearance, and in 7 cats, a number of calculi, different in size, shape and number, were surgically removed. Therapy was applied different, from case to case, with the purpose of hidroelectrolytic balancing, diuresis stimulation, pain management and removal of the cause of diseases. Diet food and suplements were recommended in maintaining urinary pH, with the improvement of the pacients general status.

Conclusions

Urinary sistem diseases in cats, registered inside Agervet-Târgovişte clinic, were dominated by chronic forms, especially in lower tract level.

STUDY REGARDING PANCREATIC DISEASES IN DOGS

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Introduction

Pancreatic diseases are frequently reported in pets with life threatening conditions. Clinical component is represented by a large number of signs, laboratory investigations aren't always clear making diagnosis establishment sometimes difficult. Still, this aspects needs overcoming, because establishing a diagnosis completed with appropiate treatment increases the pacient's chances of survival. In the study shown here, evaluation and prevalence of pancreatic diseases, has been carried out in dogs examined inside Agervet-Târgovişte clinic.

Material and method

In Agervet-Târgovişte clinical database, along 2012, a number of 573 dogs with digestive diseases and ages between 6 months and 17 years, were recorded. Dogs have been examined with physical, ecographic and hematologic methods. Pancreatic samples were taken (post mortem) in making microscopic preparations with usual methods.

Results.

Following physical and complementary examinations, it has been shown that 56 (9.77%) dogs presented pancreatic diseases. Diagnosis has been established on a clinical sign basis correlated with biochemical analysis, enzyme tests and hystologic examination (in 5 dogs). The pacients were represented by a number of 21 males and 35 females with ages between 5 and 17 years. 17 (30.36%) dogs have been reported with acute forms and 39 (69.64%) dogs have presented chronic forms of disease. Treatement was applied with the purpose of reestablishing pancreatic function and relieving abdominal pain. Antiemetics, antispastics, fluid therapy, diarheea control treatments were administered as well as antibiotics for animals with fever. To this, a hygienic and diet treatment was added, very important in pancreatic disease therapy, and after removal of clinical signs only diet food was administered.

Conclusions

Symptom and complementary examination correlation is neccesary in establishing a diagnosis in pancreatic diseases and early therapy increases the animal's chances of survival.

STUDY REGARDING ECTOPARASITES IN DOGS AND CATS

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Introduction

Pets are important hosts for certain species of parasites. So ectoparasitism is still a current issue for veterinary practice. The present study shows the prevalence of ectoparasites infestation in dogs and cats in a particular discipline.

Material and Methods

Between September 2011 and September 2012 were examined 685 dogs and 180 cats aged 4 weeks to 12 years. The Scotch test was performed and also the skin test scraping and collection of parasites in the skin and hair. Microscopic examination was performed to identify parasites.

Results

Clinical and microscopic examination it was found that 359 (52.41%) dogs and 93 (51.65%) cats were positive. Distribution by age was as follows: 154 (42.89%) dogs were classified as 1-3 months, 82 (22.84%) dogs were classified as 3 - 6 months, 63 (17.55%) dogs were classified as 6 months -1 year and 60 (16.71%) were classified as over 1 year. Regarding the situation recorded in cats, it was found that: 23 (24.73%) cats are aged 1-3 months, 18 (19.35%) cats 3 to 6 months, 19 (20.43%) cats 6 to 1 year, and 33 (35.48%) cats had over 1 year. After microscopic examination in dogs a number of cases were identified: 147 flea cases (40.95%), 129 (35.93%) cases with ticks, 61 lice cases (16.99%) and 42 cases of scabies (11.70%). In 20 cases (6.63%) two or more parasites were found. In cats, 82 (88.17%) flea cases,12 (12.90%) cases of scabies and 9 (9.67%) cases with ticks, 2 (2.15%) cases with microsporidiosis, were identified. In 12 cases (12.90%) two or more parasites were found.

Conclusions

Prevalence of ectoparasites infestation recorded significantly higher values in dogs and cats. Knowing the role of vectors that some ectoparasites have in the transmission of infectious diseases, it is recommended to apply the antiparasitic preventive treatment as early as possible in pets.

EPIDEMIOLOGIC STUDY AND MORPHOLOGIC DIAGNOSIS ON LESIONS IDENTIFIED IN PSITTACINES

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Introduction

Tumoral lesions in psittacines are, nowadays, clinically diagnosed with increasing frequency.

This study is aimed to evaluate clinic and epidemiologic characteristics together with the efficiency of the cytologic, histopathologic and necropsic diagnosis on lesions in budgerigars.

Materials and Methods

A total of 23 cases were examined at the Department of Pathological Anatomy of Faculty of Veterinary Medicine, Bucharest during September 2011 - October 2012 following a rigorous anamnesis regarding the time the lesion was observed, evolution, age and sex.

Ten cases were submitted to cytologic examination using the fine needle aspiration technique, for live cases, and the impression and scrape techniques for surgical removals and dead subjects. Three cases were submitted to necropsy and, further, histopathologic examination of organ and lesion samples.

Results and Conclusion

19 standards budgerigars (*Melopsittacus undulatus*), two cockatiels (*Nymphicus hollandicus)*, one lovebird *(Peach-Faced Agapornis)* and one cockatoo *(Cacatua sulphurea)* were clinically examined.

Sex of the birds was not significant in the tumor incidence. Regarding age, 17 cases were 1-4 year old and only six over 4. Regarding topography, seven cases presented lesions in the pectoral area, six cases in the abdominal area and, same number, in the wing region and one case each for the uropygial region, legs, eye, cere and beak.

Microscopically, nine lesions were identified as tumors and only one as an inflamatory process. Six were classified as malignant proliferations, from which five had mesenchymal origin (four fibrosarcomas and one hystiocitic cell sarcoma) and one, epithelial origin, (a basal-cell carcinoma). The benign lesions had a mesenchymal origin (one hemangyoma and two lypomas).

Malignant cases had a poor survival rate, under three weeks for mesenchymal neoplasms and one week for the epithelial one.

RETROSPECTIVE STUDY OF THE ORTHOPAEDIC ACTIVITY ON LONG BONE FRACTURES IN AN UNIVERSITARY VETERINARY CLINIC IN TIMISOARA

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This paper, through a summary of the orthopaedic activity of the Faculty of Veterinary Medicine from Timişoara – Surgery Department, aims to provide some elements of statistical analysis conducted on a sample population of 425 cases of long bones fractures in order to realize and highlight fracture management deficiencies, to direct research towards the needs of small animals populations and to support the effectiveness of the concept of clinical studies, when complete database possessed.

COMPARISON OF PCV VALUE PRIOR AND FOLLOWING WHOLE BLOOD TRANSFUSION THERAPY IN 86 DOGS

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Objective: To compare the value of PCV (Packed Cell Volume) before and after whole blood transfusion in patients that suffer from anemia or blood loss, in order to determine the efficiency of a single blood transfusion therapy.
Design: retrospective, randomized, clinical case study;
Sample Population: 86 canine patients that presented at various veterinary clinics in Bucharest, including the Veterinary Faculty Bucharest between oct. 2011 - oct. 2012, required blood transfusion and survived, were enrolled in the study.
Methods: Prior and 24 hours following each transfusion therapy, blood samples were collected for a complete blood count (CBC) using EDTA as an anticoagulant. Different hematology and analyzers were used, depending on each clinic's medical equipment. Also, a variety of other diagnostic procedures were performed, in order to determine the concurrent disease of the patients: ultrasound, endoscopy, biopsy, FNA, cytology , etc
Results: The 86 dogs used in this study suffered from different degrees of anemia caused by various concurrent diseases: neoplastic diseases 38,37% (33/86), babesiosis 17,44% (15/86), hemorrhagic gastroenteritis 15,11% (13/86), trauma cases 10,45% (9/86), intoxications 10,45% (9/86) and other diseases 8,13% (7/86).
Samples collected prior to transfusion therapy indicated a mean PCV value of 20.68%. Samples collected 24 hours after a single whole blood transfusion indicated a main PCV of 29.54%.
Conclusions and Clinical Relevance: According to our study, the mean value of PCV that triggered a consequent whole blood transfusion was 20.68%.
Following a single blood transfusion, after a 24 hour period, the PCV increased with a mean value of 8.86%.

THE TESTING OF SOME INACTIVATED VACCINES USED FOR PREVENTION OF PIGEON PARAMYXOVIRUS IN S.P.F. HENS AND COCKS

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Introduction

Pigeons can be infected and spread paramyxoviruses, avian (APMV-1) and pigeons (PPMV-1) strains, related antigenically, which belong to the family *Paramyxoviridae*. The specific protection of pigeons is achieved through vaccination with live and inactivated vaccines.

Materials and Methods

The present study were used adult S.P.F. hens and cocks to evaluate the immunogenicity of 3 inactivated registered vaccines (Nobilis® ParamyxoP201: PPMV-1; Romvac®Avipestiol Forte: NDV La Sota; I. Pasteur® Columbovac: NDV La Sota) and of one polyvalent vaccine still in the registration course (Romvac Columbopolivac S: NDV La Sota, PMV-RO96, *Salmonella Typhimurium*). Each vaccine was administered to the 15 birds free of the specific NDV La Sota antibodies, according to the manufacturer instructions for the target species (pigeon). The second vaccination (booster) was performed with vaccine Columbopolivac S after 21 days. Blood samples were collected from the first day of vaccination and 21, 35 and 56 days postvaccination. The antibody titers were determined by haemagglutination inhibition test (HI), using the ND-TEST kit (4 HIU La Sota antigen). The HI titres higher than 1/16 (2^4 or $\log_2$ 4) have been considered protective for the vaccinated birds.

Results

The vaccination induced a variable protective level, in the following percentages per each group of experiment: 40,0% (Columbovac), 53,33% (Paramyxo P201), 69,23% (Avipestiol Forte) and 71,42% (Columbopolivac S). The HI Ab titers varied between 0 and 1/2048.

Conclusion

Even if the adult S.P.F. birds don't belong to the target species, the vaccines showed a protective effect on 40-71,42% of vaccinated birds. The differences of the vaccines immunogenicity may be conditioned by their compozition. Differences were also found at the level of HI Ab titres in the vaccinated birds and among the tested vaccines. The vaccine Columbopolivac S presented the highest immunogenicity after the booster vaccination.

THE SENSITIVITY OF THE HAEMAGGLUTINATION INHIBITION TEST (HI) WITH RELATED ANTIGENS : NDV La Sota AND PMV - RO 96

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Introduction

The haemagglutination inhibition (HI) test is is extensively used for serological diagnosis of Newcastle Disease (ND). In the HI test, some level of cross-reactivity may be observed among the various avian paramyxovirus serotypes.

Materials and Methods

In the present study have been tested sera samples collected from 4 experimental groups of SPF birds, before vaccinated with inactivated vaccines (Paramyxo P201; Avipestiol Forte; Columbovac and Columbopolivac S). The HI titre of each serum sample was determined in the same time with two related antigens: 4HAU NDV La Sota antigen (provided by the ND-TEST kit) and 4 HAU PMV-RO96 antigen. On the same microplate were tested sera samples and the controls positive control, virus/antigen and negative PBS control), in the presence of 1% SPF chicken red blood cells suspension in PBS. The HA titers with the minimum value of 1/16 (2^4 or: $\log_2 4$) were considerate positive.

Results

At the experimental groups were found HI positive titers (with NDV La Sota antigen reported to PMV-RO96), expressed in percentages of the vaccinated birds, as follows - 53,33 : 86,66 (Nobilis®ParamyxolP201 - PPMV-1), 61,54 : 23,08 (Romvac®Avipestiol Forte - NDV La Sota), 35,72 : 33,33 (Romvac Columbopolivac S - NDV La Sota, PMV-RO96, *Salmonella* Typhimurium) and 40,0 : 26,66 (I. Pasteur® Columbovac - NDV La Sota). The coefficient of correlation between both HI test's variants (with homologous and heterologous antigens) varied and was influenced by the viral composition of the vaccines (0, 61; 0, 37; 0, 93 and 0, 67).

Conclusion

Even if both variants of the HI test confirm the presence of the specific antibodies well as protection against the heterologous virus strains, the level of the specific antibodies detected is significant different. For an accurate serologic diagnosis is recommended to be used the homologue antigen for the HI test, because has the best sensitivity.

PATHOLOGY OF ADAPTATION TO DAIRY PURCHASED ON THE UE MARKET UNDER CHANGE CLIMATE

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DSVSA Dolj

Dairy caws are wery sensitive to heat stress conditions and its effects have a significant economic impact for animals and farmer by lowering productivity, changes in milk quality (increased somatic cell counts) and healts problems. Aware that due to climate change, especially during hot wearher can occur when new aspects unhealthy animals actually a pathology new adaptation will be found in other management practices also critical to the welfare of animals in such conditions including where the influence of stress caused by very low ambient temperature.

Our study was over 4 years in a herd of 594 dairy cows purchased europene union market in 5 countrie. The stress adaptation, after four years, left a herd of 241 cows just jelly and removed from effectively 335 animals. Severity of heat stress is correlated with both the ambient temperature and humidity jevels and is calculated by a formula temperature-humidity index (THI). In the case of dairy cows, is disconfort whwn THI index exceeding 72 units.

FELINE FIBROSARCOMA:

RETROSPECTIVE EPIDEMIOLOGICAL STUDY

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Introduction

Feline fibrosarcoma is a malignant tumor that has it's histogenesis linked to fibroblasts, which is frequently diagnosed in Romania. Although numerous studies have been conducted on this topic, feline fibrosarcoma etiology remains uncertain, factors such as Feline Sarcoma Virus, chronic inflammation induced by vaccination, scar irradiation being involved.

The purpose of this paper is to identify some of the risk factors involved in the development of feline fibrosarcoma in a retrospective study of the cases recorded over a period of twelve years (2000 – 2012) in the Laboratory of Pathology of the Faculty of Veterinary Medicine in Bucharest.

Materials and Methods

After the clinical examination, associated with the cytological, histological and/or the necropsy findings, the study considered 170 cases of fibrosarcoma in cats.

Results

breed with the highest frequency was represented by the Non-Pure Breed (78.82%), followed by the Birman (15.29%). 48.8% of cases were females (57.7% of the Birman were females). The highest incidence of the disease was between 7 and 13 years of age, summing 71.10% of all cats. The flank area and its vicinity were represented by 52.9% of cases, followed by the cephalic extremity (15.3%) and the limbs (11.2%). The recurrences were diagnosed in 17.06% of case. The study also analyzed the tumor size, the hormonal status and the date when the tumor was diagnosed.

Conclusion

The most frequent location of the feline fibrosarcoma is the area between the hypochondrium, lumbar spine and stifle joint, coinciding with the site of inoculation of vaccines. The cat is prone to develop fibrosarcoma around 7 and 13 years of age.

ULTRASOUND THERAPY IN RELIEVING INFLAMMATORY JOINT DISEASES IN DOGS

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Introduction

Joint disease is a common problem affecting up to 20% of dogs. Osteoarthritis, often referred as degenerative joint disease, is a progressive degenerative condition of the joints. Recent advances in the management of osteoarthritis include weight loss, exercise therapy, and physical methods to reduce the severity of clinical signs and dependence on medication to control pain and discomfort (Nicholas, 1994). Ultrasound has been widely used in clinical practice for the management of various diseases, but many authors still put into question its effectiveness.

Materials and Methods

The main purpose of this study was to implement ultrasound therapy protocol in inflammatory joint disease in dogs and demonstrate its effects in relieving symptoms of these diseases so common in clinical practice.

The study was conducted in Veterinary Surgical Pathology Clinic of Faculty of Veterinary Medicine from Cluj-Napoca, in 2011-2012, on a number of 8 dogs that were submitted to clinical with lameness of one limb, of various degrees, and received, after the diagnosis, a therapeutic ultrasound protocol. In order to interpret the results of applying this treatment protocol were monitored clinical issues such as lameness, pain and extent of joint movement.

Results

In general, enhancing lameness and pain was performed directly according to the degrees of limitation of joint movement. Thus, as the joint was limited by a higher number of degrees, the improvement of symptoms was lower.

Conclusion

This study led us to conclude that ultrasound applied in the corresponding parameters, can successfully replace harmful medical treatment so long applied without causing side effects, and providing a significant improvement in quality of life in patients with severe chronic joint disorders.

SENTINEL LYMPH NODES IMAGING AFTER PERITUMORAL ADMINISTRATION OF SONOVUE

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Introduction
The purpose of this study was to compare a non invasive method of investigation-CEUS with lymph nodes coloring technique, as reference standard.
Materials and Methods
Ten female dogs with mammary gland neoplasia were evaluated. Contrast enhanced ultrasound was performed after peritumoral administration of SonoVue, in all cases. Injection of coloring solution was performed in the same location as contrast agent in six subjects. After peritumoral administration of contrast agent and coloring solution, lymphatic vessels were followed in their path to corresponding lymph nodes. Also it was recorded the site where the lymph nodes were found, their appearance, number and mode of filling.
Results
Blue dye coloring solution identified 19 neoplastic mammary glands draining lymph nodes. CEUS detected 17 sentinel lymph nodes. Lymphatic vessels appear like linear structures in their route to the corresponding lymph nodes. Two types of lymph node enhancement were observed: complete (2 lymph nodes) and incomplete (15 lymph nodes). The accuracy of draining neoplastic mammary glands lymph nodes detection was 97% for indirect lymphography. CEUS of sentinel lymph nodes detection was 87%. When the size of the enhanced lymph nodes was taken into consideration to characterize sentinel lymph nodes, the accuracy was 90%.
Conclusions
CEUS is a noninvasive and a first choice method to assess lymphatic drainage in mammary gland neoplasia. This imaging method is beneficial in an accurate assessment of sentinel lymph nodes and can provide valuable information in determining the presence of malignant infiltration.

CORELATION BETWEEN PERITUMORAL LYMPHATIC VASCUALR AREA AND LYMPH NODES METASTASES IN MAMMARY GLANDS NEOPLASIA OF FEMALE DOGS

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Introduction
Recent researches have been focused on sentinel lymph nodes assessment, most often in the detriment of lymphatic vasculature. The present research made a morphological description of peritumoral lymphatic vasculature in relation to the presence or absence of sentinel lymph nodes metastases in mammary gland neoplasia.

Material and Methods
Five female dogs were evaluated: three specimens with mammary glands neoplasia and two female dogs without pathology of mammary gland. The research method consisted of injecting in periareolar and in mammary glands parenchyma of dye solution as it follows: cranial thoracic, abdominal cranial and inguinal mammary glands. It was followed the pattern of lymphatic vessels at the injection site, their density, size distribution area, their route, in conjunction with the sentinel lymph nodes identification and appearance.

Results
In presence of mammary tumors, the coloring solution identified a rich lymphovascualr network, with sinuous course and without a typical arrangement compared to reticular or plexiform arrangement of lymphatic vessels in the absence of mammary tumors. Cranial the sentinel lymph nodes were the axillary lymph nodes and caudal the inguinal lymph nodes, for all subjects. In cases with mammary tumor it was histological confirmed the presence of lymph node malignant dissemination.

Conclusion
Qualitative morphological study of peritumoral lymphatic vasculature, revealed a high lymphatic density in peritumoral area, compared with low density inside of the tumor. The size of lymphatic area was directly related to the presence of metastases in sentinel lymph nodes.

USE MOET PROGRAMME FOR DEVELOPMENT AND CONSERVATION OF SOME RACES OF BOVINE IN ROMANIA

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Introduction

In Romania there are populations of endangered cattle as Grey Steppe breed and Pinzgau of Transylvania and Romanian Buffaloes number is a marked decline. An important role in preserving the "ex situ" is biotechnology breeding populations vulnerable to conserve animal genetic information but not breeding material: gametes usually stored sperm as semen coming from a single parent (haploid) and embryos with 2 parents (diploid) population structure that allows preservation by freezing.

Material and Method

MOET program implementation (Multiple Ovulation Embryo Transfer) to 4 gray cattle breed cow, repeated ovarian stimulation with FSH and PMSG intervals: 55, 60, and 115 and 157 days, and at 2 Holstein Friesian cattle every: 52 and 87 days.

Results

Following these repeated treatments Grey Steppe breed cows resulted in 99 of the corpus luteum (11CL/DR) from or taken Embryonic Formations 69 (7.66 FE / DR), of which 40 were embryos transferred and of these, 27 were frozen and stored in liquid nitrogen at - 196 ° C. Following repeated application poliovulations FSH treatment every 52 to 87 days, 2 heifers HF, ovaries responded with a total of 31 CL 6.2-CL / DR to who prelevat12 FE and 2.4 FE / DR and 12 embryos were frozen blastocyst. FSH were poliovulations with a 4 cows and 6 Pinzgau of Transylvania Romanian buffaloes, a total of 10 female donors who have repeatedly poliovulations treatment, and the average number was the 8.4 CL / D, 1 CL lower than the average female with repeated poliovulations, the average number was 3.3 EFF EFF / D 3 also less than 6.7 EFF in the group of females with repeat poliovulations treatment.

Conclusion

We conclude that after several repeated hormone treatments poliovulations 6 embryo donor females found that health in general and particularly genital tract not suffer in comparison with the group of 10 females poliovulations once and morphology embryos was very good, allowing freezing and storage in gene banks

EVALUATION OF MICROFLORA ASSOCIATED WITH CANINE OTITIS EXTERNA

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Canine otitis externa is one of the most common diseases encountered in veterinary practice and is estimated to affect between 5% and 20% of dogs. Infectious otitis externa occurs as a secondary complication of primary factors that initiate inflammation within the external ear canal, such as hypersensitivity disorders (atopic dermatitis, food reactions, contact dermatitis), foreign bodies, ectoparasites, keratinization disorders, endocrine and autoimmune diseases.
This study was undertaken to characterize otic microflora encountered in dogs with clinical signs of otitis externa and to determine its role in causing the disease. For this purpose 73 otic samples from normal dogs and 149 otic samples from dogs with different clinical stages of otitis were microbiological evaluated. The most common pathogens in the aetiology of otitis include members of *Staphylococcus* genus, *Streptococcus* genus and yeast from *Malassezia* genus. From normal dogs *Malassezia canis* was isolated as a pure culture or with staphylococci and streptococci in 32 samples, representing 43.8%, staphylococci were recorded at a frequency of isolation (in pure and mixed cultures) of 32.9% and streptococci were isolated in 17 pure or mixed cultures, representing 23.3%. *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Proteus spp*. were not isolated in samples taken from dogs without ear problems. From dogs with varied clinical stages of otitis, *Malassezia canis* reported a frequency of isolation (in pure or mixed cultures) of 33.3%, staphylococci were isolated in 22.4% and streptococci in 19% from samples, in pure or mixed cultures. *Staphylococcus aureus* and *Pseudomonas aeruginosa* were isolated both in pure cultures and mixed cultures and *Proteus spp*. only in mixed cultures.

TROMBICULIDOSIS IN CATS – A CASE REPORT

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Introduction

Trombiculidosis represents a parasitic cutaneous affection produced by acarian chigger mite larvae from *Trombiculidae* Family, *Acari* Order, with over 1500 species known world wide, of which 50 are responsible of trombiculidosis in animals and humans. In the study shown here, 2 cases of infestation with chigger mite larvae from acarian *Trombicula autumnale* in cats, are presented.

Materials and Methods

A long-haired 2 years old Norwegian Forest female has been admitted for evaluation in October 2011. The second pacient has been admitted in October 2012, a 4 years old Russian Blue female. Scotch test has been carried out followed by cutaneous scraping. From the samples taken, a number of slide pieces were made with lactophenol addition to clarify and were examined under the microscope. The Scotch pieces were examined with the magnifier.

Results

Animals presented cutaneous lesions, erythematosis, of different size with moderate pruritus. The first case presented concentrated lesions around the nipples, the second case presented multiple lesions along ears, nipples and legs. In both cases, microscopic examination has revealed the presence of orange coloured acarians larvae, with 3 pairs of long legs ending with strong claws. These acarians were identified as *T. autumnalis* larvae.

Conclusions

Although trombiculidosis is apparently a rare disease, it must be taken into consideration for differential diagnosis in pruritic dermatitis in cats. To our knowledge, this represents the first report of this acarian in cats in Romania.

PELODERA STRONGYLOIDES IN DOGS – A CASE REPORT

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Introduction

Pelodera strongyloides is a saprophytic nematode free-living in soil, water and decomposing matters. In dry and unhygienic environments, larvae can invade animal skin and produce parasitic dermatitis.It has been diagnosed in dogs, cows, sheep, horses, laboratory rats and humans causing severe papulomatous pruriginous lesions, sometimes difficult to treat. In the study shown here, a case of infestation with *Pelodera strongyloides* in dogs has been presented. To our knowledge this is the first case reported in South of Romania.

Materials and Methods

A 2 year old American bulldog female has been admitted for evaluation regarding cutaneous lesions in leg, chest, abdomen and muzzle area. Cutaneous scrapings have been taken and turned into slide pieces with lactophenol addition to clarify the image and were examined under the microscope. General tranquilisation and local anaesthesia were needed in order to collect skin samples which were introduced afterwards in plastic tubes containing formalin 10% for histologic examination. Hystologic pieces have been coloured by usual methods (HE).

Results

Clinical examination has revealed that the pacient presented areas of hair loss, pruriginous erythematous lesions, foliculitis, thick skin and crevices. Concentrated lesions were found in areas that came in contact with wet soil and dirty bedding. Microscopic examination of scraping materials was negative for demodicosis or other intradermic acarian, but, it has revealed, a large number of mobile larvae, with rhabditiphorm esophagus found in *Pelodera strongyloides* nematodes. Hystopathologic examination har revealed areas of hyperkeratosis, moderate hyperplasia in epidermal level, conjunctival densification areas, lymphoid infiltration in profound areas of the derm.

Conclusions

Animals raised in unhygienic environments, with decomposing matters can be infested with *Pelodera strongyloide* nematodes larvae, an important aspect that needs to be taken into consideration in differential diagnosis of dermatitis in dogs.

DIAGNOSTIC PROTOCOL OF LYME DISEASE IN *CANIS LUPUS FAMILIARIS*

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Introduction

Borreliosis is a zoonotic infectious disease transmitted by ticks to many animals like mammals, birds, lizards and other species. Number of reagents cases, commonly found positive to *B. burgdorferi* (sl) infection is actually lower than that recorded, methods and kits available providing a large number of false positive reactions due to possible serological cross-reactions of specifying limits of reagents and diagnostic methods, or even faulty workmanship. Previously studies showed that the high sensitivity and specificity in the diagnosis of Lyme disease were obtained by indirect immunofluorescence technique. The investigations carried out are designed to establish a diagnostic algorithm that highlights the true prevalence of infectious entities.

Materials and Methods

This study was conducted on a group of 25 dogs with Lyme-like clinical signs: lameness, fever, anorexia, lethargy, weight loss, and a history of tick bite in the recreation area of dogs. Pathological material represented by serum samples was tested by: dark-field microscopy technique, Immunochromatographic (IC) method, and indirect immunofluorescence (IF) microscopy.

Results

By dark-field microscopy technique 32% (8/25) samples were positive and 68% (17/25) samples were negative. IC method revealed positive result in 20% (5/25) samples and negative results in 80% (20/25) samples. Using IF microscopy we obtained in 36% (9/25) samples positive results and in 64% (16/25) samples negative results.

Conclusion

Increasing the confidence in diagnostic laboratory of Lyme disease it was observed when is used at least two different diagnostics methods.

PERI-OPERATIVE USE OF LIDOCAINE IN HORSES

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Introduction

Equine anesthesia is a challenging area. A large multi-centered epidemiological study investigating peri-operative equine fatalities, demonstrated a significantly higher peri-operative mortality rate in horses (1:50), compared to small animals (1:1750) and humans (1:200.000) . The reasons for the high incidence of deaths have not been fully elucidated, however limitations in current equine anesthetic techniques are almost certainly a contributing factor. In horses, anesthesia is commonly maintained using high concentrations of volatile agents that have significant depressant effects on the equine cardiovascular (CVS) system. Current equine anesthetic protocols provide poor peri-operative analgesia compared to those used in man and small animals, due also to the limited use of potent opioids because of their excitatory side effects in horses that render them problematic for clinical use.

Our purpose was to investigate the possibilities of the extent of usage of lidocaine as part of the protocol of equine anesthesia.

Materials and Methods

Surgery was performed on 8 horses under inhalatory anesthesia using isoflurane plus partial intravenous anesthesia. The induction was done with xylazine, detomidine, butorphanol and ketamine. Maintenance of the surgical plane of anesthesia was done partial gas/partial intravenous .

Lidocaine was used as part of the protocol for equine anesthesia as intra-venous administration. A syringe driver was used for accuracy of delivery on one procedure, and a simple IV set was used on the others.

Nerve blocks, regional nerve blocks, epidural anesthesia were also part of the procedures.

Results

Lidocaine administered by continuous intravenous infusion (systemically), appears to provide both analgesia and a volatile agent sparing effect.

Conclusion

The results appear to be promising, with systemic lidocaine providing improved peri-operative analgesia with minimal cardiovascular side effects at reasonable costs.

COMPARATIVE THERAPEUTIC APPROACH OF CANINE TRANSMISSIBLE VENEREAL TUMORS (TVT)

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Introduction

In Romania, monochemotherapy exclusively using Vinca Rosea alkaloids created mutant cellular clones of Sticker sarcoma, activating MDR genes and severe mutant genes.

Materials and Methods

During this study, a number of 10 dogs with TVT, from different breeds, genders and ages have been studied. There were performed blood tests, X-Rays, coagulation profile, biochemistry of the blood, urine dipstick, abdominal ultrasound and cytology - FNA from the biopsy mass. All the submitted samples were analysed in Laboratory of Reference both from Romania and Netherlands. The history, clinical and histological findings were all compatible with TVT. The approach was different in the two Clinics. In UK, the therapeutic approach was different, using vincristine 0,7mg/m^2 week one, repeated every 7 days for another three times. In Romania, monochemotherapy created mutant cellular clones of Sticker sarcoma. Therefore, polichemotherapy have been used (genital localization, expansive and proliferate pattern with no metastases). Preoperative, neoadjuvant polichemotherapy for cytoreduction, based on ciclofosfamide 50mg/m^2 or ifosfamide 200mg/m^2, cyclo dependent cytostatics, and 5-fluorouracil as an antimetabolit, 50mg/m^2 and vincristine 0,7mg/m^2 week one, repeated every 14 days or after surgery to prevent recurrence.

Results

All cases treated in UK with vincristine and all Romanian dogs treated with polichemotherapy shown remission of the penile masses and complete healing. In Romania, monochemotherapy created mutant cellular clones.

Conclusion

Numerous cases of TVT in the free dog population in Romania and uncontrolled breeding, along with the absence of neutering (castration) favoured the spread of tumours and the transmission of the resistance from one dog to another.

TRANSPLANTATION OF BIOPSIED, SEXED AND CRYOPRESERVED BOVINE EMBRYOS

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Introduction

Embryo biopsy performed in order to obtain a small amount of blastomeres needed for embryo sexing is an invasive method that damages the zona pellucida and therefore decreases the survival capacity of the embryo that is subsequently submitted to cryopreservation. The aim of the present study was to evaluate three biopsy techniques applied in bovine embryos according to their capacity to maintain embryo viability after cryopreservation.

Materials and Methods

Three embryo biopsy techniques (needle, blade and aspiration) were applied on 120 bovine embryos divided into 3 batches (n=40) in order to harvest the blastomeres needed for polymerase chain reaction (PCR) embryo sexing. After the biopsy, the embryos were frozen/thawed using the one stem method with ethylene glycol and then transferred into synchronized recipients. DNA was extracted from blastomeres and was amplified using bovine Y-chromosome specific primers, in order to determine the sex of the embryo. The pregnancy diagnosis and the assessment of pregnancy rate were performed 30 days after transfer using an ultrasound scanner.

Results

There was a significant difference in pregnancy rates according to the biopsy method used: 55% for the needle biopsy, 45% for the aspiration method and 30% for the microblade technique. The accuracy of the PCR sexing method was comparable in all batches, and therefore was not influenced by the biopsy method.

Conclusion

The needle method of embryo biopsy proved to be the most suitable as it yielded the highest pregnancy rates and can be successfully applied when harvesting blastomeres for embryo sexing.

CLINICALLY AND ULTRASONOGRAPHIC EXAMINATION FINDINGS IN A COW WITH RIGHT SIDED ABOMASAL DISPLACEMENT AND TRAUMATIC RETICULOPERITONITIS

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This study presents to the findings of clinical, ultrasonographic and laparatomy in a dairy cow with right abomasal displacement and traumatic reticuloperitonitis. A 5 years old Holstein cow with a history of depression, anorexia, constipation, and bloat was brought to Firat University Veterinary Teaching Hospital on March 2012. In clinical examination, rectal temperature, heart and respiratory rates were 38.4^{o}C, 56 beats per minute, 12 breaths per minute, respectively. Tympanic resonance was detected on the right, extending from tenth rib to the middle of the paralumbar fossa. Splashing fluid sounds were heard on auscultation and ballottement of the right abdominal wall. Ultrasonographic examination of the seventh to 12th intercostal area and the paralumbar fossa and reticular area was performed using a 3.5-MHz transducer. Hyperechogenic fibrin deposits interspersed by anechogenic fluid pockets were determined between reticulum and rumen during the reticular ultrasound examination. The abomasal gas cap was visualized in the dorsal region and the fluid and gas interface was determined by the ultrasonographic examination of the tenth to 12th intercostal area and the paralumbar fossa. Percutaneous ultrasound-guided abomasocentesis was performed and abomasal fluid was positive for occult-blood. Based on the history and the results of physical and ultrasonographic examination, a tentative diagnosis of traumatic reticuluperitonitis and right sided abomasal displacement was made and the cow was submitted for surgery. Surgery was performed by a right and left flank laparatomy with the cow a standing position under local infiltration analgesia. The right sided abomasal displacement and traumatic reticuloperitonitis were found. The abomasum was fixed by abomasopexy. A penicillin-streptomycin combination and fluid therapy were administered after the operation. The cow became appetent the second day after the operation and made steady improvements over the following days. It was concluded that the ultrasonograhic examination of abdomen may be very useful in cattle with both right sided abomasal displacement and traumatic reticuloperitonitis.

EVALUATION OF THE MULTILINEAR CAPACITY OF CANINE MESENCHYMAL STEM CELLS

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Introduction

Interest of the medical world towards regenerative therapy using mesenchymal stem cells has become increasingly prominent, given the many recent successes. Dogs are ideal candidates for testing the methods of isolation, cultivation and differentiation of mesenchymal stem cells into multiple cell lines and their use in regenerative therapy. The aim of this paper was to test the multipotence and multilinearity of mesenchymal stem cells derived from canine bone marrow and umbilical cord blood.

Materials and Methods

Mesenchymal stem cells were obtained from a total of 12 dogs following medular aspiration or by collecting cord blood during caesarean section. Samples were processed using Histopaque 1077 and then cultured in α-MEM supplemented medium. In order to assess the stemness and multipotency of mesenchymal cells isolated from canine bone marrow and umbilical cord blood, their phenotype was characterized by assessing the Oct4 gene expression followed by the evaluation of their differentiation potential towards bone, cartilage, fat and nerve cells.

Results

Canine bone marrow and umbilical mesenchymal stem cells expressed the Oct4 gene. This gene expression was not identified after differentiation, however was shown in cells grown in propagation medium. Osteogenic, chondrogenic, adipos and nervous differentiation was demonstrated by identifying specific morphology, specific stainings and by assessing the gene expression of genes of interest.

Conclusion

Canine mesenchymal stem cells have a high multilineage capacity, being able to differentiate towards osteogenic, chondrogenic, adipogenic and nervous lines, These properties can be exploited in order to use this type of cell therapy in homologous, heterologous and even xenogenic regenerative therapies.

ASSESSMENT OF BOAR SEMEN PARAMETERERS PRIOR TO SEXING

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Introduction

During the last decades appreciable progress in semen assessment techniques has been noted. Integrated Semen Analysis System (ISAS) and flow cytometry provides fast, simple, accurate and quantitative assessment of semen quality. The aim of our study was to estimate the motility and viability of fresh semen, in order to be submitted to the sexing process.

Material and Methods

To assess the motility and viability in boar semen 10 samples were analyzed. Samples were collected from boars belonging to the Insemination Center Murcia. The motility, concentration and viability of semen was evaluated using ISAS (ISAS®, Proiser, S.L, Valencia, Spain) and FACSCanto II (BD Biosciences) systems. The samples for FACS were labelled with Hoechst 33348, Fluorescein isothiocyanate-PNA (FITC-PNA) and PI.

Results

After computer evaluation, the average of total motility was situated at 96.24±0.41%, the progressive motility at 56.18±7.51%, the concentration at $320.28x10^6 \pm 22.18x10^6$/ml and the average viability at 94.14±0.65%.

Conclusion

These systems were used for our study because they provide fast, simple, accurate and quantitative assessment of semen quality, giving real and reliable data for selecting samples for sexing.

RESEARCHES ON THE CYATHOSTOMINES RESISTANCE PHENOMENON IN HORSES FROM WESTERN ROMANIA

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Introduction

In the last decades the anthelmintic resistance phenomenon became widespread in horses worldwide. This paper describes researches carried out in this field in western Romania.

Materials and Methods

Samples from 30 horses from 30 localities of Arad, Timis and Caras-Severin counties (10 horses in each county, 1 horse/locality) were collected and subjected to coproscopical examination. The average EPG was calculated and larval development assay (LDA) was performed.

Results

The anthelmintic phenomenon was tested against fenbendazole (FBZ) and ivermectin (IVM). 11 dilutions were used for FBZ and six for IVM. Very good results (0% larval development) were recorded at 0.15 μg/ml to 5.00 μg/ml dilutions, and the worst one (96.55% larval development) at 0.049 μg/ml dilution when FBZ was tested, respectively. Five out six dilutions (0.025 μg/ml to 0.400 μg/ml) return 0% larval development when IVM was used.

Conclusion

No resistance was noticed both in fenbendazole and ivermectin in horse strongyles from western Romania.

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SEROPREVALENCE BY IMMUNOFLUORESCENCE OF CANINE LYME DISEASE IN CONSTANȚA

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Introduction

Lyme disease is a bacterial disease. The causative agents of canine Lyme disease are spirochetes of *Borrelia burgdorferi group*. Lyme disease is the most common zoonosis transmitted by ticks. In Europe, the transmission of Lyme borreliosis is performed through the bite of *Ixodes ricinus*. The disease most often occurs in dogs by: fever, lethargy, anorexia, lameness, polyarthritis. The aim of this study was to estimate the seroprevalence of *Borrelia bugdorferi* infection in Constanța area, due to the lack of data on its current status.

Materials and Methods

To achieve the study were collected blood samples from 70 dogs from Constanța area who attended one of veterinary clinics from the town. Dog aged between 1 and 12. The blood samples were collected on EDTA sterile vaccutainers. Plasma samples were stored under -20˚C until further processed. From plasma samples presence of IgG antibodies against *Borrelia burgdorferi sensu lato* by IFAT was tested, using kit MegScreen® FLUOBORRELIA dog (Megacor, Austria).

Results and Conclusion

This study demonstrated that a number of 11 plasma samples, 6 (54.5%) female dogs and 5 (45.5%) male dogs were positive for *Borrelia burgdorferi* antibodies. Data have shown a seroprevalence of canin Lyme borreliosis of 15.71% in Constanța. The present study show that the number of cases of canine Lyme borreliosis is relatively high in Constanța. By serologic testing of a total of 70 plasma samples, 11 (15.71%) have been proved positive for *Borrelia burgdorferi* antibodies.

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LIMB FRACTURES REMEDIED BY EXTERNAL FIXATOR IN SMALL RUMINANTS

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Introduction

Fractured limbs remedied by external fixators allow the patient to support the operated limb

immediately after surgery, joints remain free, giving the affected limb a greater degree of mobility, stimulating the healing process, regeneration of the fractured bone is within optimal parameters and the intervention is less traumatic, because in most cases the site of fracture will not be opened and reopened, reducing the possibilities of postoperative bleeding and infection.

Materials and Methods

The biologic material was represented by 5 sheep's and 5 goats that were clinically diagnosed with limb fractures, at these cases we used a bilateral mono-planar external fixator and an external hybrid fixator, with two half-rings and two struts. Protocol will require general anesthesia and local site preparation, fixing the fracture and external fixator application, radiological examination, hematological tests, and postoperative antibiotics, anti-inflammatory medicine and vitamin D3.

Results and Conclusion

Using external fixator in fractures of the limbs in small ruminants have confirmed the advantages of this type of intervention hastening the healing process and supporting the immediate resumption of the limb support.

URETERO-ENTEROSTOMY IN THE DOG AND THE RESPONSE OF THE HEMATOLOGICAL PARAMETERS AFTER SURGERY

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Introduction

Pre-operative assessment of the renal function in dogs undergoing surgery for uretero-enterostomy and post-op assessment of the ability to eliminate urine to the exterior through the intestine, the permeability of the ureteral anastomosis to the intestine, absorption of urinary components in the gut with consequent increase in the blood value was performed by monitoring the parameters: urea, creatinin, hemoglobin and total proteins.

Materials and Methods

Three clinically healthy dogs respective three females aged 1.2 (case 1), 1.5 (case 2) and 6 years (case 3) underwent surgery for ureteroenterostomy.

Results

Following surgery in all three patients, blood urea increased to very high values compared to the physiological limits, reaching a maximum value at about three days after surgery and then beginning to decrease, reaching two weeks after surgery, values near to the upper limit, but still higher than normal values. In all cases, creatinin increased postoperative, reaching a maximum on day 3, very close to the upper limit in the first case, and at the upper limit in case 2 and slightly higher then the upper limit in case 3. Hemoglobin decreases slightly after surgery because of intra-operative bleeding, but returns rapidly to initial values, which are within physiological limits. Interesting is the increase in the values of the total proteins, which have exceeded the upper limit in cases 2 and 3, but gradually returned to normal in the 4^{th} day after surgery.

Conclusions

Two weeks after surgery, creatinin, hemoglobin, total protein are within normal limits in cases 1 and 2. Urea remains higher than normal values (75.5 mg / dl).

A CASE OF BLISTER DISEASE TO *BOA CONSTRICTOR*

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Introduction

Blister disease is a common condition in reptiles due to poor environmental management – that is, housing the reptile in overly-moist or dirty surroundings. It is also known as vesicular dermatitis. Later, these scales become swollen and infected by opportunistic bacteria (*Pseudomonas spp.*). Small reptiles or those with weakened immune system (either from previous illness, malnutrition or stress) can go downhill rapidly and die very fast from blister disease.

Materials and methods

One young snake (a 4-month-old male *Boa constrictor*) was submitted for clinical examination. About 4 days present clinical signs that included restless movements, anorexia, changes of skin colors into dark nuances and vesicular formation disposed on the side of the body in the lower third. Has been developed and extract a reddish liquid, which was then subjected to bacteriological (including test for susceptibility to antibiotics) and cytological investigations.

Results

Cultural examination of the fluid was positive for *Pseudomonas spp*. After susceptibility test established a treatment for 7 days, with Amikacin used IM route. Clinical condition of snake after therapy returned to normal. Cytological examination did reveal the presence of increased numbers of Gram negative bacillary bacterial cells.

Discussion and Conclusions

Poor condition may have created a suitable microenvironment for opportunistic *Pseudomonas* infection.

Early treatment is essential and the animal must be seen by a specialist vet. Other conditions can present in ways which may be mistaken for blister disease and so it is very important that the diagnosis is made correctly. When the treatment has been completed and the snake is well, it is very important that the environment is kept clean and dry at all times.

NECROTIZING FASCIITIS IN DOG – CASE STUDY

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Introduction

Streptococcus spp are common opportunistic pathogens of mammals and are associated with a variety of diseases affecting multiple organ systems. Necrotizing fasciitis is a severe, debilitating disease in adult dogs that can result in systemic illness and death. Toxic shock–like syndrome, a typically fatal sequel of necrotizing fasciitis in dogs. In dogs, *S. canis* is the most common streptococcal species isolated in cases of toxic shock–like syndrome associated with necrotizing fasciitis.

Materials and methods

One male German Shepard dog (a 12-year-old) was submitted for clinical examination, present anorexia, febrile state, intensely painful subcutaneous lesions, and lameness in right side of the neck area. Aggressive supportive care included intravascular fluid therapy, intravenous antibiotics, and nutritional support. After 48 hours of treatment, rapidly develop severe hypotensive shock and disseminated intravascular coagulation and died. Post-mortem was revealed lesions of septicemia and gangrene. Samples were then collected for bacteriological examination.

Results

Clinical and laboratory findings suggested sepsis. Rapid progression of the infection, as well as anatomopathological findings were characteristic for necrotizing fasciitis of a neck area caused by *β-hemolytic streptococcus* infection. Cultural examination confirmed the presence of group G beta haemolytic streptococci associated with *S canis*.

Discussion and Conclusions

Streptococcal septicemia in older dogs is often a sequel to localized infections, such as with necrotizing fasciitis. Streptococci are important opportunistic pathogens in the neonatal and adult dog. Streptococcal infection can result in septicemia as well as life-threatening localized infections in the skin and lung. Thus, isolation of *Streptococcus* does not necessarily correlate with disease and must be interpreted with consideration of clinical and pathologic findings.

OPENED QUESTIONS IN THE DIAGNOSIS OF CANINE BABESIOSIS: MICROSCOPIC AND MOLECULAR APPROACH

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Introduction

Canine babesiosis caused by species of the genus *Babesia* is recognised as an important protozoan disease affecting dogs and wild canids, worldwide. Diagnosis is still a significant challenge for veterinary practitioners, and not only.

Materials and Methods

Blood samples collected through cephalic venipuncture from 40 dogs, suspected of babesiosis with specific clinical signs (hyperthermia, hemoglobinuria, icterus), were screened for the presence of *Babesia* spp. by light microscopy and polymerase chain reaction (PCR) to the genus level.

Results and Discussions

Overall, 17 (42.5%) blood samples were found *Babesia* positive by light microscopy and 16 (40.0%) through PCR, respectively. The protozoa were diagnosed in 14 (35.0%) samples through both methods. Likewise, the evidence of the parasite was observed in 3 (7.5%) PCR negative samples by light microscopy and 2 (5.0%) direct smear negative blood stream by PCR, respectively. Comparative analysis showed discrepancy between the two used diagnosis methods. Unfortunately, we don't have a clearly explanation regarding this opposing patterns, taking into account that all sampled dogs exhibited clinical signs. However, in case of the light microscopy the false diagnosed cases can support on subjective judgment of the reader and the presence of refracting artefacts in the direct smear. Instead, the PCR reaction can be inhibited by occasional errors during the procedure and especially by the presence of PCR inhibitors originating from the starting material such as heparin.

Conclusion

Based on the results obtained we suggest the combination of two methods for a more certain diagnosis.

Acknowledgements

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COMMENTS ON HISTOPATHOLOGICAL CHANGES IN RABBIT LIVER WITH EIMERIOSIS

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The study was conducted on a total of 117 White New Zealand breed rabbits, which were identified by feces examination with varying degrees of infestations with *Eimeria* sp. Among them 22 individuals were slaughtered and after necropsy specimens were examined, Eimeriosis hepatic lesions being identified in 20 of them.

Specific lesions were hepatic hypertrophy with presence of necrotic miliary nodular centres, vesicular looking angiocolitis, apostematous hepatitis and cirrhosis.

Histopathological examination pursued in particular the consequences of sexual ongoing phase. Biliary ducts are dilated with hyperplastic epithelial reaction and the formation of papillary reactions with the presence of asexual and sexual stages of development (micro-and macrogametocis and oocysts in progress).

In the center of the necrotic focus one can observe the presence of „old oocysts" with altered structure, characterized by the absence of sporont , changed shape and altered wall structure.

Histopathological lesions in the liver showed the following symptoms: severe congestion and dilation of central veins, rupturing of the lining endothelial, hyperplasia of the lining epithelial of portal areas with finger-like projections in lumen of the bile duct, congestion and dilation of sinusoids with haemorrhage areas. Multiple areas of coagulative necrosis of hepatic cells surrounded with inflammatory cells were found.

ERRATIC PARASITISM WITH *LIGULA INTESTINALIS* L. PLEROCERCOIDS ON PERCH *PERCA FLUVIATILIS* L. – CASE STUDY

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Introduction

Parasitological studies of fish from Bicaz reservoir was made especially from the last decade, on the cultured trout bred in floating cages. From 586 fish captured, 369 were perch (62,9%). The weight range (g) of captured perch from the lake varied between 5,9 -1600 g weight, the fish length range (cm) being 6-38 cm, the dominant average being 10-18 cm. In this oligotrophic reservoir (32 /km long, 92 m in depth, 3000 ha surface area), the dominant species from the 15 actual free living fish populations is so far perch *Perca fluviatilis* L. The aim of this case study was to signalize an erratic infestation of perch with plerocercoids from *Ligula intestinalis* L., a cestode usually found on bleak *Alburnus alburnus* L.

Material and Method

The necropsy of the perch revealed that the distension is secondary to invasive larvae who determined a gastric reflux and the plerocercoids appeared back in the lumen of the esophagus and in the oral cavity of the perch when it was captured.

Result and Conclusion

After the attack and ingestion of the infested bleak, four plerocercoids with the average length of 7 cm, invaded the gastric cavity of the digestive tract, an abnormal localization of parasite. Also, the presence of a large number of little stones in the gastric cavity suggested the harmfulness of invasive parasite and the pain provoked on perch.

A CASE OF EXTRAHEPATIC PORTOSYSTEMIC SHUNT IN A DOG

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Introduction

At the Clinic of the Faculty of Veterinary Medicine Bucharest, was presented a rottweiler dog, female, aged three months, who was diagnosed with unique extrahepatic portosystemic shunt.

This paper reviews the diagnosis and the surgical treatment of this condition.

Matherials and Methods

The diagnostic algorithm for this case was the following: history, clinical exam, serum biochemistry and hematology, then ultrasound exam in both 2D and Doppler modes. The ultrasound exam revealed an unique extrahepatic portosystemic shunt, and a small, hyperechoic liver.

A surgical approach was decided. The shunt was identified first, then a ligature with cellophane band was applied around the shunt, occluding only partially the vessel. The abdominal cavity was closed in a routine manner.

Results

The recovery after surgery was good, the level of the hepatic enzymes dropped, the PCV raised three days after. The dog begin to eat small amounts of canned food.

At ten days after surgery, at the time of removal the stitches, the dog died suddenly. The owners did not accept a necropsy.

Conclusion

The surgery was a success, demonstrated by the amelioration of the dog's condition after the ligature. The fact that a necropsy was not performed, makes the cause of death difficult to asses.

CLINICAL RESEARCH ABOUT THE LEFT ATRIUM PATHOLOGY AT PETS

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Left atrium is one of the most important cavities in the cardiac hemodynamics; its affection has serious impact on the heart and even on the body.

The most frequent induction of left atrial disease is the mitral valve modification, particularly, degenerative mitral valvulopathy. This causes an increase of the blood volume in the left atrium leading to hypertrophy and left atrial dilation. Another common induction of the dilation of the left atrium is the dilatated cardiomyopathy.

Left atrial dilation induces: 1. an increase of the back pulmonary pressure with the appearance of the pulmonary stasis, 2. excessive dilation of the left atrium can cause compressions in the lungs, which produce cough, rebel cough to the common medical treatments 3.dilation by the decrease or abolition of atrial contraction (in the atrial fibrillation) induces thrombus, by their migration, causing severe thrombosis and severe infarcts to the heart level / for example dilated cardiomyopathy at dogs) or terminal aortic thrombosis (common at cats).

This paper presents, besides the theory and the diagnosis of left atrial disease by echocardiographic, radiographic and electrocardiographic exams, also a specific therapy.

REMARKS ON THE DIAGNOSIS OF RIGHT BUNDLE BRANCH BLOCK ON DOGS

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Right bundle branch block occurs due to the blocked transmission of electrical impulse through the right branch of the His bundle. This blocking causes the asynchronism of the both ventricles contraction by hemodynamic disturbance.

Right bundle branch block causes are: dilated right ventricle, congenital heart malformations, right dilated cardiomyopathy, myocardial fibrosis, etc. The diagnosis is established only electrocardiographically: QRS duration increased over 0.07 seconds and electrical axis deviation to the right.

This paper presents besides the diagnosis of right bundle branch block, at dogs, other particular situations encountered at the Cardiology Clinic, respectively the congenital right bundle branch block and particular cases of differential diagnosis such as, for example, the differential diagnosis between the right bundle branch block associated with atrial fibrillation and ventricular tachycardia.

NEUROMODULATION AFTER NERVE GRAFTING INTO THE SPINAL CORD IN RATS

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Introduction

Pharmacological neuro-protective and neuro-modulating effects become crucial for restorative surgery in spinal cord (SC) injuries.

Materials and Methods

Sural nerve grafting into the SC with co-adaption to the nerve of the abdominal muscle was performed in 30 adult rats. Group I was used as control; the groups II and III received Cerebrolysin® or NaCl solution. After three months the rats were monitored for muscle re-innervation and the grafted nerve (GN) was injected with fast blue. The histology and fluorescence microscopy were made on SC and GN. The immunochemistry for transporters into the motor endplates (MEP) was used.

Results

Re-innervation and partial switch from cholinergic to glutamatergic transmission was confirmed. The Cerebrolysin® group showed enhanced number of oligodendroglia, and reduced number of astrocytes and macrophages, better preservation of neurons, reduced fibrosis and better axonal regeneration. Fast blue positive neurons were demonstrated in grey matter of SC.

Discussion and Conclusion

Re-activation of glutamatergic transporters in the MEP after nerve grafting in SC was described by BRUNELLI et al in 2005. We demonstrated that spinal neurons can re-innervate the GN and that Cerebrolysin® has neuroprotective effects.

PRIMARY CUTANEOUS ASPERGILLOSIS CAUSED BY *ASPERGILLUS FLAVUS*, IN CAT – CASE REPORT

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Introduction

Aspergillosis is recognized as an opportunistic infection in human and animals often occuring in association with other chronic disease (immunodeficiency, diabetes mellitus, long-term antibiotherapy, chemotherapy, surgery, etc.). Over 95% of human aspergillosis are produced by *A.fumigatus*, *A.flavus* and *A.niger* commonly found in the environment. Primary cutaneous aspergillosis with *A.flavus* has been rarely reported in human, mainly in immunocompromised and diabetic patients, after surgery. Aspergillus infections have been more less reported in cat than dog, with two clinical forms: nasal and systemic. Early detection and treatment are important factors in infection control.

Materials and methods

This paper illustrated a primary cutaneous aspergillosis of the tail in a spayed mixed-breed female cat, 10 years old, with no general symptoms, except a native aggresiveness. Tail lesions consisted in edema, diffuse induration, superficial crusting and sarcomatous appearance on section and develloped in about 1 year most likely after repeated self-mutilation that finally required the docking. The samples prelevated from the lesions were submitted to bacteriological, mycological and cytological investigations.

Results:

In the smears from skin lesions stained by Gram method several fungal elements were observed, while Giemsa staining showed many degenerate neutrophils, but also neoplastic cells embedded in a pink material suggestive for sarcoma. Mycological examination demonstrated the infection with *A.flavus* which was isolated in pure culture.

Conclusion

The case is still under investigation and represent a real therapeutic challenge for us considering the chronic infection and the age of patient.

CLINICAL AND MORPHOLOGICAL INVESTIGATIONS IN A DISTEMPER DISEASE OUTBREAK IN SILVER FOXES

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Investigations were performed in a silver fox farm in Bacau county.

Subjects were clinically examined and necropsies were performed on dead animals.Clinical signs and characteristic lesions to the distemper disease virus were identified.Histopathologically, intracitoplasmatic inclusions were evidentiated in tonsils, renal epithelium, bliary epithelium, lungs and lymphnodes.

RESEARCHES REGARDING THE INCUBATION INDICES DYNAMICS IN COBB 500 HYBRID

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Introduction

Incubation is a complex process which assures optimum environmental conditions to normal development of the poultry embryo. It needs the following conditions: eggs collecting and preserving, transport to the hatchery, their sorting and pre incubation, loading of the incubators, incubation, the biologic control of the incubation, one-day chicks hatching and sorting. It is also necessary for future good meat productions some good quality biologic materials.

Materials and Methods

The studies in the present paper were carried out in a private hatchery, during December 2010-September 2011, on eggs from Cobb-500 hybrid 20-30 weeks aged. They were incubated after the stipulated regulations. They were 4 days old, grouped in six series, shared by 4 control drawers. Each series consisted in 25000 eggs, and there were analyzed 125 eggs per each drawer.

Results

There were analyzed the recorded data regarding the fecundity, the number of hatched chicks, the hatching percentage from the total eggs and from the fertile eggs and the percentage of eggs with dead embryos. There were data statistically made and some differences between the series and their significance.

Conclusion

Following our studies, the eggs fecundity is framed among 80% to 90% in all the series. It may notice a good uniformity of the hatching percentage of the fecund eggs, comparatively the number of introduced eggs. The hatching percentage has higher average values, being framed between 88% and 90%. The embryos mortality varied among series, from 10 to 11,5% of the total fecund eggs. Eggs hatching percentage correlated to reproductive hens age has an increasing trend from 22 to 28 weeks.

STUDY REGARDING THE ANIMAL WELFARE AND PREVENTIVE MEDICINE IN THE POPULATION OF DOGS IN BUCHAREST

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We reviewed 700 questionnaires used for indirect evaluation of health in companion dogs. The study involved 250 purebred dogs, 250 crossbred dogs and 200 community dogs. The scores of the four questionnaire responses were used to evaluate the potential risk factors for infectious and parasitic diseases in dogs. The first question assessed the preventive veterinary assistance frequency requested by the owner. The remaining three questions were related to active prevention of major infectious diseases (distemper, infectious hepatitis, para-influenza, leptospirosis, and rabies) and pest control (fleas, ticks, intestinal parasites).
The preventive veterinary assistance was carried out once a year in 54.0% (135/250) of the purebred dogs, 25.2% (63/250) of the crossbred dogs and 39.0% (78/200) of the community dogs. The biannual preventive assistance was carried out in 20.0% (50/250) of the purebred dogs, 14.0% (35/250) of the crossbred dogs and 23% (46/200) of the community dogs.
Interest in maintaining the health of dogs by annual vaccination was higher in all categories of breeds, only 17.9% ($p<0.05$) have not been vaccinated yearly.
The owners of all categories of breeds prefer annual (48.1%, $p <0.05$) or biannual (31.3%, $p <0.05$) deworming, without prior assessment of infestation. However, the majority of owners (62.4%, $p <0.05$) use ectoparasitic products only if fleas or ticks were present.
These data highlight the greater interest of purebred dog owners in evaluating health status of dogs (74.0%) compared to the owners of cross breeds and community (49.3%), and an equal interest in prevention of main diseases of dogs. Nevertheless, the use of ectoparasitic products only on dogs already infested can be a wrong decision in an area with vector-borne diseases history. Since ectoparasites could be carriers of vector-borne diseases, a preventive program could be more reliable for animal welfare.

INDIRECT EVALUATION OF THE STERILIZATION/NON-STERILIZATION EFFECTS ON THE WELFARE IN DOGS

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Seven hundred questionnaires completed by owners of dogs from Bucharest have been reviewed in order to assess the effect of the dog sterilization/non-sterilization on welfare.
The study involved 400 non-sterilized dogs (232 males, 168 females) and 300 sterilized dogs (123 males, 177 females). Both groups have been divided in three subgroups: purebred, crossbreed and community dogs. For the sterilized animals were determined the age of animals at that time and the reason of sterilization. Four pathological events were questioned and correlated with spaying and neutering: obesity, pyometra, nervous lactation after pseudo pregnancy and prostatic hyperplasia. All these pathological conditions are already known as welfare disturbing factors for dogs and several studies reported correlations between sterilization and these.
In our study, reproductive disorders imposed the sterilization to 127 dogs (51.18% males, 48.81% females), of which: 37.00% (47/127) purebred, 41.74% (53/127) crossbreed and 21.26% (27/127) community dogs. Prevalence of obesity was 18.40% (46/250) in purebred, 30.00% (72/250) in crossbred and 18.00% (36/200) in community dogs. A correlation between obesity and sterilization in the population of dogs studied was not observed. Pyometra prevalence was 21.05% (24/114) in purebred, 18.26% (21/115) in crossbred and 16.19% (17/105) in community bitches. Nervous lactation prevalence was 71.05% (81/114) in purebred, 58.26% (67/115) in crossbred and 19.05% (20/105) in community bitches. Prevalence of prostatic hyperplasia was 10.29% (14/136) in purebred, 2.22% (3/135) in crossbred and 7.37% (7/95) in community dogs. The highest prevalence of prostatic diseases in group of purebred males was correlated with sterilization in old ages (86.95% after 2 years age). The low prevalence of prostatic diseases in crossbred and community males was correlated with high proportion of early age neutered dog (58% before 2 years age). Therefore, early sterilization of non-breeding dogs could be a good decision to reduce the unnecessary distress associated with reproductive pathology.

THE POTENTIAL USE OF NEAR-INFRARED SPECTROSCOPY FOR THE QUALITY ASSESSMENT OF EGGS AND EGG PRODUCTS

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In a context of high productivity, eggs' quality assessment is necessary for enhanced safety and quality assurance towards the consumers and feedback for producers. The quality assessment of eggs and egg products is performed using destructive and time-consuming methods, therefore the use of rapid tools becomes mandatory, especially in the case of a high production rate and high productivity. NIR spectroscopy is considered a very reliable and rapid technique with large use in food industry. At the farm level, NIR spectroscopy technique would be an interesting tool to determine the chemical and physical properties of eggs (internal quality) and, moreover, this information may help the layer farm manager when a problem occurs in the flock. Its application in the egg industry is aimed to the quality changes in eggs during storage and quality assessment of the egg products, through the compositional analysis. It is possible and in some cases successful the prediction and/or determination of different parameters such as: protein, total lipid and total solids content (for liquid egg products), polyunsaturated fatty acids (for freeze-dried egg yolk), moisture, fat and protein content (for spray-dried whole eggs). In addition, for the white colored shell eggs, the detection of blood and meat spots is also successful. Further studies with NIR and NIR-HSI are needed in this direction, as the results obtained until now are very promising for the development of a rapid tool for quality assessment of eggs and egg products.

IMPORTANCE OF THE GOAT SLAUGHTER AGE ON TECHNOLOGICAL PARAMETERS OF THEIR CARCASS

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Introduction

In this study we analyzed the evolution of technological parameters of goats carcass according to age. For this study we created two groups of samples, namely: group I represented by the goatling and group II represented by adult goats.

Materials and Methods

On these meat samples we analyzed: meat chemical reaction (pH), water holding capacity, cooking loss test and drip loss (losses from refrigeration). For this samples we analyzed a total of 30 samples of goat meat for 15 for each group considered to be studied. Samples were collected from goats slaughtered during 2012 in a slaughterhouse in SE Romania.

Results

The values for the chemical reaction of the first group samples (goatling) varied between 6,20 and 6,32, the average being 6,26 and for the group II between 6,31 and 6,39, with an average of 6,35. Water holding capacity showed an average value of 61,23% for group I to 64,17% for group II. Cooking loss are recorded 37,62% to group I to 32,28% in group II, and for drip loss 4,06% for young kids to 4,88% to adult samples.

Conclusions

Results lead to the conclusion that slaughtering goats at a younger age represents a disadvantage for manufacturing and processing, generating qualitative and quantitative losses in finished products.

STUDY ON THE CHEMICAL COMPOSITION OF GOAT MEAT SAMPLES CORRELATED WITH THEIR AGE

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Introduction
The research has been conducted in order to determine the values of main chemical components in goat meat and establish a link between animal age and the values of these parameters.

Materials and Methods
Age groups considered in the study have been goatling and adult goats. Samples were collected in 2012 from an approved European slaughterhouse involved in intra-authorized veterinary trade, fulfilling all specific legal requirements. For determinations were used following methods: moisture content by drying in an oven, protein content by Kjeldahl method, total fat content used Soxhlet extraction unit and ash percentage was determined by using calcination method.

Results
The mean values for the results obtained from the measurements made were: 77,6% moisture for goatling to 73,5% for adults goats,14,8% protein for goatling to 19,8% for adults, 1,74% fat for goatling and 2,88% for adults, 1,14% ash for goatling to 1,52% for adults goats samples.

Conclusions
As it can be seen, as age increases, the major components with important nutritional role occupy a higher share of the goat carcass, resulting in superior technological and organoleptic characteristics compared to the slaughtered youth.

TRANSFER FACTORS FOR ENDOCRINE DISRUPTING COMPOUNDS FROM FEED TO MILK

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Introduction

Toxic compounds, such as organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs) and heavy metals (HMs) are ubiquitous in the environment, thus indirectly in animals feed. The transfer of these compounds from animal feed to food products contribute to the human exposure, through consumption. OCPs, PCBs and HM are highly persistent, biocumulative and present a wide range of toxic effects, including endocrine system disrupting, being considered as a new class of nonsteroidal xeno-estrogens.

In this study, the transfer factors (TFs) for 19 OCPs, 7 PCBs and 7 HMs have been evaluated for the quantification of their transfer from cows' fodder to milk.

Materials and Methods

In July 2012, milk samples and feed (grass) from cow's diet were collected in two villages from Maramures County, Romania. The compounds OCPs and PCBs were analyzed using gas-chromatography coupled with electron capture detection after solvent extraction and the heavy metals using inductively coupled plasma mass spectrometry after appropriate acid digestion.

Results and Conclusion

Among the OCPs, all the HCH isomers were detected in all the investigated samples, the highest concentrations were obtained for α-HCH and also all the isomers DDTs (except 2,4'-DDD) were determined, with highest concentration for 4,4'-DDE. All the investigated metals were detected in milk and grass samples. The obtained results showed that the TFs ranged between 0.03-0.28, the highest value was recorded for hexachlorobenzene and the lowest for lindane. High values were determined also for dieldrin (0.25) and for heptachlor (0.23).

WELFARE ASSESSMENT IN DAIRY COWS IN A FARM FROM PRAHOVA COUNTY

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Introduction

Assuring a good animal welfare level is not only a mean of increasing livestock production, but also a moral duty of human society. As a major concern, of general interest, animal welfare is covered by numerous governmental or nongovernmental organizations and bodies: Food and Agriculture Organization of the United Nation, World Trade Organization, European Council, European Union, Intergroup on the Welfare and Conservation of Animals, Eurogroup for Animals, World Organization for Animal Health, Codex Alimentarius, World Veterinary Association, World Society for the Protection of Animals.

Materials and Methods

The present paper aims to assess the welfare level in a farm from Prahova County, respectively in 2 houses for dairy cows with capacities of 520 and 480 animals, reared in collective pens. Because our country hasn't an official welfare assessment system, we used an integrative numerical system from Austria organic farming: Animal Needs Index 35. This system consists in the study of welfare indicators included in 5 areas of influence: locomotion, social interaction, flooring, light and air, stockmanship, for each parameter points being awarded. The sum of all scores gives the overall ANI score. The research was based on metric measurements, data from health records, body hygiene score, Gait score or were done by using specific equipment (Dräger MiniWarn portable gas analyzer, LM8010 multifunction device, SL4012 sound level meter, Hill catathermometer).

Results and Conclusions

The overall ANI score was 24 for the first house and 23.5 points for the second - with a weighted average of 23.76 points. As critical issues stand out: lack of outdoor access, draughts' high velocity, poor hygiene of pens, feeding and drinking areas, as well as poor body hygiene of animals (soiled animals).

Based on obtained scores, the welfare of dairy cows in the farm can be rated as average.

RESEARCHES REGARDING THE COMPARATIVE EFFICACY OF THE COMBINED INTER FAMILIAL, FAMILIAL AND BY OWN PERFORMANCES SELECTION APPLIED TO THE BREEDING OBJECTIVE CHARACTERS IN A MEAT HEN BREED

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Introduction

The importance of the precision the animal breeding value for selection was understood in early times. Having in view the increasing of this precision in poultry, the assessment based upon the own performance was replaced step by step with the one by family average, linked to sisters or half sisters, but especially to descendants.

Materials and Methods

The present research was made in Avicola Bucuresti Company, on one of the maternal lines used for obtaining the meat hybrids. The calculus was made in 2011 generation, by checking results of production and selection proven from half of the families of the whole line. Finally the research was made on 27 rooster families (a mix of sisters and half sisters) and 209 hen families (sisters).

Results

Analyzing the recorded data it may noticed that taking into consideration the mix of sisters and half sisters in the rooster family, even the genetic correlation of half sisters is exceeded (r = 0,25), it is not realized a very high gain.

Conclusion

The high number of hens for each rooster, comparatively the size of the maternal families, means that the average relationship among the paternal families does not differ by the theoretical inbreeding of the half sisters. The combined selection is superior as efficacy to the selection on own performances for all the characters, as the familial selection, as the character heritability is lower. It was superior proven the combination own performance-hen family average.

STUDY ON COMPLIANCE WITH CUTTING TECHNOLOGY AND IMPACT ON QUALITY CATTLE CARCASSES

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Introduction

In cattle cutting technology, an important factor for obtaining sanitary housing carcasses is the strict noticing of the technological stages.

The aim of the paper is to focus on the technological stages highlighting the importance of compliance monitoring cutting cattle and its failure impact assessment on the quality and safety of obtained carcasses.

Materials and Methods

The study was conducted in a cattle slaughter facility located in the south of the country, unit which has detailed procedures that describe all technological stages and actions of workers. Monitoring was done by direct observation and monitoring records sheets. During the study, October 2011 - May 2012 the animals stunning was performed by designated officer and there were no non-compliances. In the cattle evisceration monitoring sheets were highlighted outcomes from cutting 16 cattle young cattle class on the first working day of February 2012. In 12.5% of all animals monitored, workers did not have respect the technology of cutting, they perforated the intestine, and the carcasses were contaminated with the gastrointestinal content. In this case, the non-conform carcasses were transferred to the secondary line, there were showered at the end of the workday and sanitation tests were collected.

Results and Conclusions

Results were positive and downgraded carcasses. The evisceration monitoring of 18 cattle showed violations of evisceration procedures in 11.11% of all monitored animals. Irregular carcasses were isolated, they were showered immediately and then there were collected sanitation tests, with negative results. During the study period it was noticed in all the cases the way of removing the spinal cord, confirmaly the monitory sheets. The obtained conclusions concern that although the cutting technology is known, there are also cases of non-compliance. The necessary corrections will be implemented immediately after recording nonconformities for the results to be appropriate.

RESEARCHES REGARDING THE BODY WEIGHT DYNAMICS IN METIS YOUNG GOATS SAANEN X CARPATINA BREEDS AND MOTHERS MILK PRODUCTION

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Introduction

In the latest years, goats' breeding has recorded an increasing importance at national and also international level, due to their superior milk ability, being known that they produce 8 to 20 times more milk than their body weight, and their superior prolificacy, resistance and adaptability to different environmental conditions.

Materials and Methods

The researches in the present paper were carried out on two populations of goats, represented by young goats Saanen X Carpatina and Carpatina breeds. There were recorded data regarding their daily average gain, by weighing at birth, at 28 days and at 56 days and also their mothers production during the suckling period. The milk production was estimated by individual, monthly control. It was made the statistical analyze, being calculated the main statistical parameters of the population and there were made comparisons between the two groups.

Results

Starting from almost identical body weight at birth, the group of young goats Saanen X Carpatina recorded superior values of their body weight than the young Carpatina breed goads. The same trend was recorded regarding mothers milking ability, and their production.

Conclusion

Following the researches we conclude that the management of young goats breeding is an environmental factor which could influence the morph productive features of youth in different stages of breeding and development. The body weight at suckling is influenced by gender, and mothers milking ability relating directly with the increasing of the goats age. Using the crossing between native breeds and milk breeds determines the increasing of the number of kids.

DETECTION OF LISTERIA MONOCYTOGENES IN FOOD PRODUCTS USING A POLYMERASE CHAIN REACTION-BASED METHOD IN COMBINATION WITH A STANDARD REFERENCE ENRICHMENT STEP

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Introduction

Listeria monocytogenes remains one of the many foodborne pathogens that require continuous monitoring. The detection and tracing methods are quickly developed for a better improvement and a quicker identification of this foodborne pathogen that may be present in food samples.

Materials and Methods

A total number of samples consisting of different types of food products were collected from local markets in Bucharest, subjected to enrichment steps (according to EN ISO 11290-1 and ISO 11560) and further on to a PCR analysis.

Results and Conclusions

This resulted in eight samples with positive results, among them goat cheese, smoked fish, sausages and raw chicken meat. The identification was possible and quick, no matter the bacterial load of the samples, due to the existence of a virulence gene pertaining to the internalin gene family: *InlB*, which is specific to *L. monocytogenes*. This method ensures a high sensitivity and specificity in a very short period of time, reducing the work time for this analysis with five days concerning the negative results and seven days for the positive ones.

OCCURRENCE OF *CAMPYLOBACTER* SPP. IN ROMANIAN BROILER CHICKEN PRODUCTION SECTOR

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Introduction

Due to the well-known potential of *Campylobacter* spp. to determine illness in humans, its detection and occurrence, especially in poultry meat (due to the frequent contamination of this food product) are considered highly important for the consumer's health point of view.

Materials and Methods

In order to determine the occurrence of *Campylobacter* spp. in the Romanian broiler chicken production sector, a number of five units were selected and samples were collected as it follows: a total number of 600 samples consisting of chicken skin neck, 600 samples of intact intestines and 1200 samples of fresh chicken carcasses.

Results and Conclusions

The results were different from one unit to another, but overall, 54.7 % of the caecal material samples, 48.5 % of the neck skin samples and 31,5 % of the carcass samples were contaminated with *Campylobacter* spp., with an overall percentage of positive samples reaching 60,2 %. This high occurrence opens the opportunity for future research in order to determine the causes leading to contamination, while also identifying the species of this genus, for a better understanding of this mechanism through which this foodborne pathogen contaminates broiler meat.

VIRULENCE FACTORS IN *LISTERIA MONOCYTOGENES* STRAINS ISOLATED FROM ANIMAL PRODUCTS

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Introduction

Listeria monocytogenes, an important human and animal pathogen, is responsable for major outbreaks associated with food products. In understanding foodborne listeriosis, a main role is played by many virulence factors of this microorganism. Although low-level *L. monocytogenes* contamination of some food products is relatively common, suggesting widespread exposure, listeriosis occurs in only a small proportion of susceptible individuals. The purpose of this work was to investigate, by using a complex phenotypic *in vitro* assays, the expression of cell-associated as well as soluble virulence components in *L. monocytogenes* strains isolated from food sources.

Material and Methods

The study was performed on 11 *L. monocytogenes* strains isolated from smoked pork meat, minced meat (pork and beef), snail meat and cheese products. The strains have been studied for the adherence to HeLa cells and invasion of the cells, as well as for the production of enzymatic virulence factors (pore forming toxins: hemolysine, lecithinase, lipase; exoenzymes: gelatinase, amylase, caseinase, DNase).

Results and Conclusion

The majority of the tested strains adhered with high rates to HeLa cells with a predominant diffuse-aggregative pattern. Frequently there were observed modifications in the nucleus (condensation, fragmentation and budding) or cytoplasm alteration characteristic for apoptotic cells. The profiles of the soluble virulence factors revealed the presence of hemolysine, caseinase and lipase to the majority of *L. monocytogenes* strains.

NATIONAL CENTRE OF GREAT BUSTER GROWTH AND REPRODUCTION IN SEMICAPTIVITY FOR RESTOCKING OF POPULATION IN ROMANIA

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Introduction

This paper presents a part of work performed in the framework of scientific cooperation with Moldova priority program of the National Institute of Economic Research "Costin Kiritzescu" in theme "Compared economic research of the ecological reconstruction in Romania and Moldavia" to develop a national center Multidisciplinary for reproduction and growth in semi-captivity of Great Bustard (Otis tarda). The wildlife reintroduction in Romania is a national project scope, disappearing of the bustard population in Baragan and other areas during the eighth decade of the last century.

Project objectives are:

- development of infrastructure for reproduction and growth in semi-captivity Great Bustard, including establishment of the sanctuary for kids and adults -developing a multidisciplinary research program
- initiating international collaboration with advanced European centers in Spain, UK and other countries (Russia, Ukraine, Moldova, Serbia)
- reintroduction of the species Otis tarda in the natural environment

- development of modern methods for public acceptance and support activities restocking tourism project in reserve
- activities of global biodiversity conservation

The project aims to populate the great bustard (Otis tarda) in the complex of National Park Comana, located in Giurgiu County, by replacing the former military polygon of Mihai Bravu area in civil circuit of the county. We are taking steps to create a "natural reserve", in accordance with the European Directives" Birds "and" Habitats".

The great bustard, is a bird symbol of our steppes, and disappeared from the Romanian fauna in the '80s. Great bustard is considered vulnerable, both in Europe and globally, because of the high decline (> 30%) decline over three generations (mid-1960). The species are listed on Appendix II of CMS, while the population of

Central Europe is listed on Appendix I. A Memorandum of Understanding on the Conservation and Management of the Great Bustard in Central Europe came into force on 1 June 2001. The species is also listed in Appendix II of CITES in Appendix II of the Bern Convention and Annex I of the Birds Directive. This paper presents an evaluation of the research activities of this species based on a comparative analysis of collaborations in Spain, Moldavia and Russian Federation.

Conclusions

The project on restocking of the great bustard (Otis tarda) in a complex of Comana National Park will create wider cooperation to conserve biodiversity across the border. Otis tarda will be an important natural resource by releasing valuable specimens in our steppes.

DIOXINS AND POLYCHLORINATED BIPHENYLS CONTAMINATION RELATED TO FOOD SAFETY REVIEW

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Dioxins and polychlorinated biphenyls (PCBs) are persistent organic pollutants with high chemical stability; they are lipophilic compounds and they are not destroyed by microbial, photochemical, chemical or thermal degradation. Dioxins and PCBs are ubiquitous environmental contaminants, which are present in all marine plant and animals, birds, mammals and humans and bioaccumulate through the food chain.

In the last years, there has been an important concern regarding food contamination with different chemical substances and their effect on food safety and more, particularly, in the end of the 20th and the beginning of the 21st century, there were a series of dioxin and polychlorinated biphenyls (PCBs) related accidents, that directly affected human or contaminated the soil and accumulate in feed and then in food products.

Short-term exposure of humans to high levels of dioxins can produce skin lesions, such as chloracne and patchy darkening of the skin and altered liver function. Long-term exposure is linked to impairment of the immune system, the developing nervous system, the endocrine system and reproductive functions.

In general, foodstuffs from animal origin and, especially, poultry products, are considered to be an important source of dioxins and PCBs and maximal concentrations have been fixed in the European legislation for dioxins and PCBs in food from animal origin, in order to protect the consumer.

ASSESEMENT OF MINERAL NUTRIENTS, HEAVY METALS AND PESTICIDES IN POULTRY LIVER USING ICP-MS AND GC/MS

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Introduction

Poultry liver is considered to be one of the most important sources of mineral nutrients in humans' diet, but due to its specific structure tends to bind chemical contaminants such as heavy metals and pesticides. The aim of this study was to perform a short characterization of mineral nutrients concentration and heavy metals and pesticides contamination in commercial poultry liver samples and their possible effect on food safety.

Materials and Methods

Eleven commercial poultry liver samples coming from 3 different Romanian slaughterhouses were submitted to analysis. Heavy metals (Cd, Pb, Hg, Al) and mineral nutrients (Ni, Cr, Mn, Cu, Fe, Zn, Ca, Mg, K, Na) were determined by ICP-MS. For organochlorine and organophosphorus pesticides quantification GC/MS was used.

Results and conclusions

The concentrations for heavy metals ranged from 0.008 to 0.03 mg/kg Cd, 0.02 to 0.06 mg/kg Pb, 0.001 to 0.002 mg/kg Hg and 0.09 to 0.6 mg/kg Al. For all samples, the values of organochlorine and organophosphorus pesticides were under the limit of detection. For mineral nutrients, concentrations ranged from 0.02 to 0.07 mg/kg Ni; 0.02 to 0.09 mg/kg Cr; 0.5 to 1.32 mg/kg Mn; 0.9 to 2.6 mg/kg Cu; 12.9 to 48.7 mg/kg Fe; 3.7 to 7.7 mg/kg Zn, 35.6 to 62.3 mg/kg Ca, 86.6 to 167.2 mg/kg Mg, 1555.9 to 1668 mg/kg K, 593.51 to 1127.8 mg/kg Na.

Although it is known that people ingest heavy metals and pesticides from animal products, the concentrations obtained in this study showed that there is no risk for human health linked to the consumption of poultry liver.

NOSEMA CERANAE PREVALENCE IN *APIS MELLIFERA* REVIEW

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Nosema ceranae, a microsporidium fungi, is considered to be the most prevalent parasite to European honeybee (*Apis mellifera*). During the last years, an increase in infections by *N. ceranae* in the honeybee has been detected in several European countries, consecutively with increasing numbers of honeybee colony deaths and low productivity.

The present article reviews the most important scientific literature on *Nosema ceranae* contamination and the most recent techniques used to determine the prevalence of this parasite to *Apis mellifera.*

Recent studies showed that *N. ceranae* has the ability to grow not only in the gut, but also in hypopharyneal glands, salivary glands, Malpighi tubes, fat bodies and brain. This could explain the hypothesis that *N. ceranae* causes more deaths in honey bee colonies than any other parasites. Also *N. ceranae* contamination is more often associated with collony collapse disorder, one of the most important syndromes that affect the colonies of *Apis mellifera*.

The most common used technique for detection of *N.ceranae* is reverse transcription polymerase chain reaction (RT-PCR) assay which exclusively amplified the 16S rRNA targeted gene of a specific microsporidian.

Using of mass spectrometry (MS)–based proteomics (MSP) techniques offers an orthogonal and complementary approach to the RT-PCR that has been traditionally used for pathogen identification and classification. Peptide fragment data acquired by MSP enables the identification and classification of microorganisms without the need for amplification, probes or primers that are commonly associated with RT-PCR–based methods.

Although *Nosema ceranae* did not represent a concern in Romania until now, contamination can occur at any moment due to climate modifications and commercial exchanges.

MICROBIOLOGICAL QUALITY OF SOME TRADITIONAL PRODUCTS

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Introduction

The paper tries to bring new elements on the methodology used in order to elucidate some aspects related to traditional products' quality, products obtained by private producers in the Braşov district (Rucăr – Bran pass), Covasna district and Bistrita Nasaud district.

Materials and Methods

Were analyzed organoleptically, physico-chemically and microbiologically samples of fresh cow cheese, soft cow cheese, smoked curd cheese, gaiter cheese and cottage cheese taken within the strategic and self-control program from individuals in the rural areas of the three districts.

Results

The results of microbiological analysis for fresh cow cheese have not revealed any overflow in E.coli's number, according with the European legislation in force. For cottage cheese samples the results were inferior to maximum allowable limits both for determining Staphylococcus aureus's number and E. coli's number. In most curd samples were no exceedances of maximum allowable values for E.coli, and as for coagulase positive Staphylococcus aureus there was one case of failure in criteria for hygienic processing. At smoked curd cheese samples did not surpass the maximum allowable values for Salmonella spp and coagulase positive Staphylococcus aureus. The 98 analysed „telemea" samples showed two violations of hygiene conditions for processing, and the absence of pathogens of the genus Salmonella and Listeria monocytogenes, in all analyzed samples. Gaiter cheese analyzed showed no increase above the admissibility limit.

Conclusions

The manufacturing system still remains at traditional level, despite the development of mechanical and electronic means that would improve the working conditions. However, qualitative analysis demonstrated once again, if necessary, the high level of hygiene processing and food safety, preserved for generations, during manufacturing these traditional products.

INTEGRATED USE OF CARBOHYDRATES AND PHENOLIC STRUCTURES FOR THE FRACTIONING OF LIGNOCELLULOSIC RESIDUES

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Introduction

Biotransforming cellulosic materials using either commercial enzymatic products or microorganisms which produce cellulases leads to obtaining simple chemical compounds from which, through numerous fermentative processes (aerobic or non – aerobic) a wide variety of compounds might be obtained, with value of dietary supplement, of fodders, biofuels, solvents, enzymes etc. Considering these opportunities, the present study targets the analysis and the optimization of the biotechnological conditions of bioconverting carbohydrate polymers of lignocellulosic residues into ethanol.

Materials and Methods

The paper presents the results of fractioning the biomass towards its bioconversion to ethanol for both – the carbohydrates resulting from hemicelluloses and from the ones of the lignocellulosic complex. Therefore not only methods of chemical hydrolysis were applied, but enzymatic ones too, using products developed in our own laboratories. Also, the possibility of turning into account the phenolic compounds – with high antioxidant potential – was closely looked into, as the phenols are the result of the enzymatic cleavage of the lignocellulosic edifice, rigidly structured. This treatment, unlike the acid hydrolysis, does not cause degradations in the aromatic structures, when submitted to high temperatures.

The distillation process, as well as the correction one for the ethanolic solutions that came both from the pretreatment phase and from the celluloso – lythical saccharification phase were performed in the same fashion, using the identical methodology. The results were, therefore, comparable and compared as considering the bioconversion yields and the „INVENTA AG" protocol, applied in Switzerland, through which a quantity of 95% ethylic acid is obtained, that is of 240 liters/tone ligneous dried residue.

We have used the following microorganisms:

- Pachysolen tannophilus strain CBS-4044 NRRLY-2460

- Trichoderma viridae, strain 3196 Institute of Food Chemistry (ICA)
- Trichoderma reesei QM9414 (Merk – Germany)
- Saccharomyces cerevisiae strain ATCC-42368

and substrates: corn cobs, beech shavings (of Brasov County), fir shavings (of Brasov County)

Results and Conclusions

We have determined the optimal parameters for obtaining ethylic alcohol out of lignocellulosic residues and realized the enzymatic hydrolysis with the ICA product. The obtained fermented product, enriched with organic nitrogen, can be used as natural fertilizer in order to remedy degraded soils, or even as insulation biomass.

Acknowledgments

This work has been developed with the technical support of the Institute of Food Chemistry, Bucharest, Research Department.

PATHOLOGY OF ADAPTATION TO DAIRY PURCHASED ON THE UE MARKET UNDER CHANGE CLIMATE

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Dairy caws are wery sensitive to heat stress conditions and its effects have a significant economic impact for animals and farmer by lowering productivity, changes in milk quality (increased somatic cell counts) and healts problems. Aware that due to climate change, especially during hot wearher can occur when new aspects unhealthy animals actually a pathology new adaptation will be found in other management practices also critical to the welfare of animals in such conditions including where the influence of stress caused by very low ambient temperature.

Our study was over 4 years in a herd of 594 dairy cows purchased europene union market in 5 countrie. The stress adaptation, after four years, left a herd of 241 cows just jelly and removed from effectively 335 animals. Severity of heat stress is correlated with both the ambient temperature and humidity jevels and is calculated by a formula temperature-humidity index (THI). In the case of dairy cows, is disconfort whwn THI index exceeding 72 units.

NONCOMPLIANCES WHICH LEADS TO AN INEFFICIENT PEST CONTROL IN MEAT PROCESSING PLANTS

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Introduction

The aim of this study is to avoid the mistakes which lead to an inefficient pest control in meat processing plants.

Material and Methods

The study was carried out since 2004 to 2012. During this time, I worked with many plants from meat industry. A chapter of the foods safety assessments in these plants was the pest control. Unfortunately, in many cases I found that the pest control programmes were not correctly created and applied, so I met the following mistakes which should be avoided for an efficient prevention:

- The yard was not kept clean and tidy, many objects are inadequate stored (construction materials, pallets). Such materials may provide nesting places for rodents;
- In some plants, the containers from the garbage platform, did not have lids and because of wastes from the canteen, the animals and insects were attracted;
- Many storage designed for auxiliary materials were built without a sluice or receiving area. The existence of warehouse doors that open directly outside it is not appropriate because of the high risk contamination through pests;
- The absence of control regarding the integrity of packaging or the presence of any trace of pest infestation in auxiliary materials;
- Fly-killers devices installed in the production areas, that mean that insects are already present there;
- Boxes with toxic baits inside of the plant (storages, receiving, delivery areas).

Results and Conclusion

Pests entering or infesting food plants are a significant potential source of microbiological, physical and chemical hazards (use of pesticides). The target of pest control is to prevent the pest ingress in the plant and not to combat them inside. Prevention is critical in pest control.

INCIDENCE OF SALMONELLA SPP IN MEAT AND MEAT PRODUCTS DURING 2009-2011 IN DOLJ COUNTY

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Introduction

In this study we aimed to isolate and identify serotypes of *Salmonella spp* incriminated in food poisoning outbreak in samples of meat and meat products.

Materials and methods

We analyzed samples of meat and meat prodacts from processing units and cold storage and the marketing network, using reference methods - SR EN ISO 6579/2003 and alternative methods (method Vidas, Vitek)

Results

In the period under study were analyzed 3971 samples, 6 samples were positive, a rate of 0.15%. Of the 6 positive samples, 3 samples are minced pork, 1 sample mixture prepared meat (cattle, pigs), 1 sample refrigerated pulled pork, 1 sample turkey wings. Of the 6 isolated strains , 4 strains belong to serotype *Salmonella typhimurium*, 1 strain of *Salmonella Goldcoast*, 1 strain of *Salmonella Hadar*. The dominant serovariants was *Salmonella typhimurium* (66.6% percentage of number of germs of the genus Salmonella isolated).

Conclusions

The study revealed that the highest percentage of bacteria of the genus Salmonella was detected in processed foods, meat (minced meat, meat preparations and paste small) which is the mmai contaminated.

The identify of this serovariants can be attributed maneuvers to the processing steps and handling products of animal origin, because the highest percentage of bacteria of the genus Salmonella was isolated from product wicht was handled very much. After detection, confirmation and typing serotype *Salmonella typhimurium* in meat production samples analyzed were taken measures like restraint, confiscation and withdrawal of lots from these products.

AFLATOXIN AND OCHRATOXIN CONTAMINATION IN POULTRY- A REVIEW

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Aflatoxin and ochratoxin are the most common mycotoxins in poultry feed. Their presence contribute to significant health disorders and decrease in production performances. This leads to considerable economic losses for the poultry industry by increasing mortality, decrease in body weight, number and quality of eggs, greater feed conversion and immunosuppression. The risk associated with mycotoxin residues in poultry meat and eggs represents a concern in human health.
The present article reviews the most important scientific literature on aflatoxin and ochratoxin contamination in poultry and their relationship with food safety.
Aflatoxin is the most prevalent and economically significant mycotoxin for poultry industry. Aflatoxin B_1 is the most toxic from this group and it is produced by *Aspergillus flavus* and *Aspergillus parasiticus*.
Ochratoxicosis occurs less frequently in poultry than aflatoxicosis, but is more lethal because of its acute toxicity. Ochratoxins are produced, especially, by A*spergillus ochraceus and Penicillium veridicatum.* Ochratoxin A is the most toxic compound and is produced in greater quantities than other related mycotoxins.
Recent studies showed that young poultry are more sensitive to aflatoxin and ochratoxin than adults. Ochratoxin has high affinity for liver and kidney, meanwhile aflatoxin has high carcinogenic potential and hepatotoxicity. Lesions in the liver include hepatomegaly, hydropic degeneration, fatty changes, bile-duct hyperplasia and periportal fibrosis.
In order to prevent and reduce the negative implications of these mycotoxins in poultry production, it is necessary to create both global and national strategies to reduce the amount of mycotoxins in grain, to use advance analitical techniques and to establish new limits concerning the maximum amount of mycotoxins allowed in poultry feed and products from poultry for human consumptions .

PASTORAL BIOECONOMY TRADITION AND CUSTOMS IN SIBIU MARGINIME

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Sibiu Surroundings include settlements in the vivinity of the mountain, such as Siliste Sibiel valey, Tilisca, Fantanele, Rod, Orlat, Gura River, Poplaca, Rasinari Glade Sibiu, Sibiu and Ijina Wednesday. Grazing was the main occupation of the inhabitants of the Surroundings: occupation as Dacians are practical and Romans (atestate the existendce of lawn shears sheep on the hill fortress Cisnadioara found dated from that time). The first form is the sedentary grazing that those who had a few sheep pastures were using the center of the village, a second form was shepherding pendulatory that those who a greter number of shepherds and sheep entrusted to them for the move and thus appears that transhumance was determined and harsh winter conditions of land Transylvania. In transhumance grazing occurs over the centuries as a regular seasonal migration astronomical. Leaving sheep from mountain to plain, Transylvania and Moldova in Roumanian land was made by customs and ceremonies in early March. Way sheep was, passed trough Sibiu, stopped the mouth where it was custom to Caineni stopped overnight to grab Salatruc and from there to the Court of Arges Pitesti, then "the great road" to Bucharest or villages over Vlasca, go take 10-12 days. Cheese main product from sheep milk was produced for the first time in Marginimea, a sheperd "John Smith, Salistean walked in sheep, here at home and in America". The merchandise conducted on sheep breeding with cheese, meat, wool etc. "Margineni" brought in today and make a significant contribution to the economy of Sibiu and in the intra- and extra- to the Danube and Black sea.

NEW STEPS IN QUALITY CONTROL FOR FOOD SAFETY – LEARN SIX SIGMA

Belous Mădălina

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Introduction

The potential of this study is to investigate issues regarding potential application of Learn six Sigma in Food Industry. The approach is based on a study cases (production centres, which already implements other quality techniques – HACCP, ISO Standards with commune parts with Learn Six Sigma). The paper explore in an analytical manner, the factors that can influence the implementing of the system in Food Industry with focus with the commune elements specific for ISO Standards or HACCP with Learn Six Sigma. Quality is one of the most important topics that interest the companies. Was perceive like a tool to bring competitive advantage or customer satisfaction for the companies. According Green (2006), Six Sigma is a new interpretation of TQM, and all the required features of TQM are found in correct application of Six Sigma. This new methodology represents a new step in Quality Control and Food Safety. Also Todorut et al., (2009), pointed out that Six Sigma is a model of improving other quality management practices and is a complementary relation among other managerial systems like ISO 9000, Kaizen techniques, TQM and Total Productivity Maintenance as a result of the growth of the economic performance.

Materials and Methods

The study is based on an exploratory method with a qualitative approach based on interviews with the Managers. Other secondary data were collected through Audit Reports Analysis issues from Certification Processes of Quality Control Standards.

Results and Conclusion

We find out that the companies with the similar quality principles and practices like ISO 9000 Standards already implemented are more open to implement the new Learn Six Sigma Methodology.

HETEROGENEITY OF *SALMONELLA* STRAINS AND THEIR COMPETITION IN ROMANIAN POULTRY FARMS

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Several *Salmonella* strains are zoonotic agents, often human infection originating in food products. That for European Commission issued regulations to control specific *Salmonella* serotypes in poultry industry (e.g. Regulation (EC) No 2160/2003, No 1003/2005, No 1168/2006 and No 646/2007) in order to reduce public health risk. Nevertheless, preventing contamination of poultry farms with food-borne pathogens, such as *Salmonella* spp., remains a significant challenge in poultry industry.

This paper has been designed to investigate the heterogeneity and dominant serotypes of *Salmonella* spp. in eight poultry farms from Giurgiu County, Romania.

Using standardized methods for *Salmonella* isolation, identification and stereotyping, from 2008 to 2010 have been isolated 525 strains belonging to 15 serotypes: *S.* Infantis (273 strains), *S.* Virchow (182 strains), *S.* Hadar (19 strains), *S.* Enteritidis (10 strains), *S.* Tennessee (9 strains), *S.* Newport (9 strains), *S.* Mbandaka (8 strains), *S.* Tallahassee (3 strains), *S.* Thompson (3 strains), *S.* Livingstone (2 strains), *S.* Amsterdam (2 strains), *S.* Kottbus (2 strains), *S.* Salamae (1 strain), *S.* Glostrup (1 strain) and *S.* Isangi (1 strain). In five farms the dominant serotype was *S.* Infantis, in one farm *S.* Newport was the dominant serotype, and in one farm it has been isolated only *S.* Enteritidis strains. Looking to the population structure linked to the type of production – egg production, only one year they had *S.* Enteritidis contamination: after stamping all flock and starting a new cycle they kept the freedom status. We found the biggest strain diversity in broiler farms, from 2 to 10 different strains. One farm registered the most important diversity of *Salmonella* strains: over three years of monitoring have been isolated ten serotypes, while in the other farms no more than three serotypes for each.

EVALUATION OF *SALMONELLA* ENTERITIDIS AND *SALMONELLA* TYPHIMURIUM SEROTYPES CIRCULATION IN POULTRY POPULATIONS IN ROMANIA

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The purpose of this study has been to evaluate the frequence of *S.* Enteritidis and *S.* Typhimurium strains in poultry farms from Giurgiu County, Romania. Samples from seven poultry holdings have been submmited to bacteriological exams, according with SR EN ISO 6579:2003. *Salmonella* Enteritidis was identified in 42.86% (3/7) holdings, representing 1.90% (10/527) from all *Salmonella* isolated. *Salmonella* Enteritidis has been in only one farm in 2008, and in two farms in 2010; in 2009 were not isolated strains of *S.* Enteritidis. In 2008, the frequency of *S.* Enteritidis among *Salmonella* isolates was 2.51% (5/199), while in 2010 the frequency of *S.* Enteritidis was 3.09% (5/162). We have not isolated strains of *S.* Typhimurium during research study.

Great distance in time between outbreaks of *S.* Enteritidis and absence of a connection between *Salmonella* outbreaks identified, raises questions about the general biosecurity measures and potential sources of infection.

EVALUATION OF SOME THERAPEUTIC SCHEMES IN CONTROL OF VARROOSIS ON APIARIES IN THE MOUNTAIN VALLEY FROM PRAHOVA COUNTY

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Introduction
The extension of varroosis, with worldwide distribution, epizootic character of the disease, and the associated risks for bee colonies, has been determined, in the last years, a strong mobilization of the experts for finding appropriate control strategies. The aim of the present study was to evaluate an integrated control strategy of the population of *Varroa destructor* in apiaries located in a mountain valley from Prahova County, using alternative organic acids and synthetic acaricides.

Material and Methods
The studies were conducted in three apiaries on a total of 55 colonies, for a period of 3 years. In the apiary A, a treatment of amitraz fumigation has been applied; in the apiary B was applied a treatment (by fumigation) with a product containing both tau-fluvalinate and amitraz; in the apiary C was applied the treatment of oxalic acid 4.2% solution, by dribbling among the frames over bees, followed by a control treatment with the bivalent product. The efficacy of the treatments was calculated as percentage (%), based on the number of *Varroa* mites fallen on the control sticky papers, before and after acaricides applying.
In the apiary C it was tested the efficacy of an integrated control scheme, that combines survey of biological parameters of bee colonies with treatments based on organic chemicals, known to be less polluting.

Results and Conclusions
Treatment against the mite *Varroa destructor* performed by alternating commercial products containing active substances from different groups of pesticides, like amitraz and fluvalinate, showed an efficiency of 90.03% in the apiary A, up to 92.5% in the apiary B. In the apiary C, where an integrated control program was applied, the average efficiency was 97.3%.
The results of this study highlighted that the integrated control scheme (macroscopic examination of larvae, nymphs and bees on honeycomb capacity; examining residue from the bottom of the hive; dusting of adult bees with different nontoxic substances) maintains the average infestation of *Varroa* in bee colonies at a level (1% ± 0.5%) which allows its optimal functioning for annual beekeeping.

FOOD SECURITY AND ADAPTATION TO CLIMATE CHANGE - GENOTYPING FOR RESISTANCE OF DISEASE-

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Adaptation to climate change is essential for any efforts to promote food security, poverty alleviation, or sustainable management and conservation of natural resources. Many countries are already dealing with climate change impacts. The dynamic of food's world population projection to 2050 year and consumption dynamic of cereals, animal products (meat, milk, eggs) in terms of respect international standards of food safety and security; the known european principles "from the farm to the fork" and "from the farm to the plate" which have restricted rules established by European Food Safety Authority, must be respected in agrifood products 2050 year perspective also. In this framework, the food safety and security must be correlated with the respect of known principles of Hazard Analysis and Critical Control Points, based on actual international standards from ISO 9001-9002 series (Quality Management System), ISO 14001: 2004 (Environment Management), ISO 22000 (Food Safety). The projections for the future socio-economic environment and the assessment of the situation and prospects of the natural resource base raise the question as to whether and under what conditions the estimated future food demand can be met and how food security can be achieved.

Eco-economic promoting of organic traditional products of Muscel in the context of food security and safety

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Traditional products are those natural, organic, which conjures childhood, the pantry grandparents in the country side. Muscel area is nationally and even internationally recognized as a traditional producing goods area. The goal of promoting these products is to help the farmers to have a market in order to develop a sustainable bio-economy. The Muscel area has a rich a natural, cultural, historical, architectural dowry. In this context, promoting traditional products in this area is not only possible but necessary to rationally and effectively exploit these natural and human resources. Eco-economic development of rural tourism, agrotourism and ecotourism in the area Muscel are involved primarily traditional products directly from local farmers and communities. Promotion is closely related to local government and leadership, as well as regional and national governmental organizations and NGO's through fairs, festivals and events related to customs and traditions. Over 2,500 Romanian traditional products have been registered with the Ministry of Agriculture and seek local or national outlet. In the European Union, traditional products market accumulates sales of 14 billion EUR annually. In Romania, the marketing of these products is mainly in fairs and markets, only a small number being displayed on supermarket shelves. But those products accumulate annual sales of over 100 million, according to statistics Ministry of Agriculture.

COMPLIANCE GENERAL AND SPECIFIC HYGIENE RULES FOR FOOD

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Controls in food producing units should be based on risk category involved in activities in that unit.

Relevant risk assessment takes into account the probability of their occurrence, severity and reproduction at every stage technology.

Food business operators shall ensure that all stages of production, processing and distribution of food under their control satisfy health requirements.

Also, they must ensure, insofar as possible, that products are protected against contamination, having regard to all the processing that products will subsequently undergo.

Food premises are to be kept clean and maintained in good condition.

The layout, design, construction, siting and size of food premises are to:- permit adequate maintenance, cleaning and / or disinfection, avoid or minimize air-borne contamination and ensure sufficient and adequate working space for the hygienic performance of all operations;

- to be such as to prevent the accumulation of dirt, contact with toxic materials, shedding of particles into food and the formation of condensation or undesirable mold on surfaces;

- to permit good hygiene practices, including protection against contamination and, in particular, pest control;

- to ensure adequate storage and handling conditions, with temperature control and sufficient capacity for maintaining foodstuffs at appropriate temperatures can be monitored and, if necessary, recorded.

In premises used for food must be: a sufficient number of toilets with running water, a sufficient number of sinks, suitable and sufficient means of natural or mechanical ventilation, natural lighting system and / or artificial appropriate, personal lockers .

Drainage facilities must be appropriate to. They must be designed and constructed so as to avoid the risk of contamination.

THE IMPACT OF PRACTICAL STAGES IN VETERINARY MEDICINE - HRDSOP PROJECT 91/2.1./S/63915

Gabriel Predoi, Aneta Pop, Stefania Raita, Claus Bertea

Introduction

Paper presents the importance of practical stages implemented in the project LABOUR MARKET INTEGRATION OF VETERINARY MEDICAL STUDENTS – PRACTICAL TRAINING, co-financed by European Social Fund through the Human Resources Development Sectoral Operational Programme 2007-2013, implemented by University of Agronomical Sciences and Veterinary Medicine Bucharest, University of Agricultural Sciences and Veterinary Medicine "Ion Ionescu de la Brad" Iasi and the educational software company Softwin.

Material and Methods

Project implementation will increase the relevance of the learning process and its outcomes by using innovative and interactive approaches for conducting 5 internship programs that cover the practical needs and allow the application of knowledge acquired in the classroom and also will update professional skills of the personnel involved in the practical training of students.

There were made approaches to identify and correlate the students' needs with the necessary specific practical skills demanded by professionals in the different veterinary medicine areas. Questionnaires were disseminated among students and different institutions, potential workplaces after graduation. There were identified five domains of interest: Farm Animals Breeding Units, Clinics and Hospitals, Laboratories (research, diagnosis, food control), Slaughtering Houses, Rural Veterinary Clinics.

Results and Conclusions

During 2010 – 2012 the project registered an enormous success among the students from the 2 universities, 2400 students benefited from practical stages held in animal farms, laboratories, veterinary clinics, meat/dairy processing units from all over the country, over 25 tutors were trained to offer technical support for the student, over 20 partnerships agreements signed with clinics/companies/public institutions in the field of veterinary practice, 1 fully equipped rural clinic in Ganeasa in order to help students practice veterinary medicine on sheep, pigs and horses.

E-LEARNING SYSTEM IN VETERINARY MEDICINE HIGHER EDUCATION IN HRDSOP PROJECT 86/1.2./S/63654

Predoi Gabriel, Iuliana Ionascu, Petronela Rosu, Raluca Burlacu

Introduction

Paper presents the progress of the project HIGHER EDUCATION AT EUROPEAN LEVEL IN THE FIELD OF VETERINARY MEDICINE, co-financed by European Social Fund through the Human Resources Development Sectoral Operational Programme 2007-2013, implemented by University of Agronomical Sciences and Veterinary Medicine Bucharest, University of Agricultural Sciences and Veterinary Medicine "Ion Ionescu de la Brad" Iasi, University of Agricultural Sciences and Veterinary Medicine Cluj Napoca, University of Agricultural Sciences and Veterinary Medicine Timisoara and Shotron Association.

Material and Methods

Project aims to improve the extension of e-learning curriculum offers to allow a better preparation of students through access to virtual information resources and interactive communication, and flexible learning opportunities.

During April 2012 both the e-learning system and the multimedia courses were completed and installed by partner Shotron, in order to test the online curriculum approach by a number of 2,500 students from the four universities.

E-learning system includes working tools and digital materials that allow a flexible and permissive education environment, which promotes student-centered learning. Also, the digital system allows access to a virtual library and an online community that hosts flexible, accessible, core competencies resources and learning communication facilities in order to ensure a quality higher education and to improve communication among students and between students and teachers.

Results and Conclusions

New digital curriculum registered a real success among the target group – over 2683 students applied and accessed the four modules and gave a positive feedback. The e-learning system and multimedia courses can be found at medicalvet.fmvb.ro.

E-learning curriculum allows a better preparation of students through access to virtual information resources and interactive communication, and flexible learning opportunities and to attract a more diverse student population.

EVALUATION OF FOOD ESTABLISHMENTS

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Units that produce, process, store, transport and / or distribute products of animal origin may carry out veterinary checked only after obtaining the veterinary authorization.

Before entering the legal representative catering units required to obtain, where appropriate, the veterinary authorization, conditional authorization or authorization veterinary intra-community trade in food of animal origin from the Veterinary Direction and Food Safety.

Veterinary Direction and Food Safety is required to address the authorization request within 15 working days from the date of registration, the expert veterinary staff within the department / office and veterinary hygiene epidemiology.

Specialized veterinary staff is required to complete, after completing evaluation unit requiring authorization, notice of finding and evaluation form.

The evaluation form is determined by the Veterinary Hygiene and Epidemiology Division of the National Sanitary Veterinary and Food Safety Authority for each type of unit and includes conditions that must be fulfilled units in accordance with Community legislation.

To the evaluation form attached note finding, which includes details of the evaluation results.

Where are veterinary requirements in catering establishments, the veterinary and food safety county issued within 5 working days after completing the evaluation and finding the note, the veterinary authorization.

Where are detected nonconformities, official veterinarians recorded in the evaluation form, and finding note deficiencies and measures taken.

After rectification of deficiencies, the legal representative of the unit applies for veterinary direction and food safety county revaluation unit.

Veterinary authorization issued for public catering establishments remain valid as long as the conditions under veterinary legislation.

OPERATION AND HYGIENE OF FOOD ESTABLISHMENTS

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Catering units operating under veterinary authorization issued by the Veterinary Direction and Food Safety.

If it is found during official inspections of food establishments that do not qualify veterinary operating under the laws in force, the veterinary and food safety county will suspend or, where appropriate, prohibiting conduct of business and communicate this in writing veterinary hygiene and epidemiology division of the National Sanitary Veterinary and Food Safety.

Suspension or, where appropriate, prohibiting conduct veterinary business units to have the veterinary and food safety county, or upon verification by expert veterinary staff.

When units are authorized veterinary requesting authorization for additional activities that meet the veterinary requirements is through the veterinary authorization procedure for the activity for which authorization is requested, the veterinary authorization to withdraw previously owned and issued a new permit that includes all authorized activities.

Veterinary Hygiene and Epidemiology Division of the National Sanitary Veterinary and Food Safety Authority, in view of risk group classification unity, performed the first audit of authorized units in the first 6 months of authorization and thereafter at least every 2 years.

If, following official controls, the Veterinary Direction and Food Safety county, finds that the conditions laid down by the veterinary legislation, shall notify the legal representative unity tested and may order sanctioning in accordance with laws.

If non-compliance is not remedied within the time entered in the order of suspension work done under veterinary authorization, the veterinary and food safety county, withdraw the unit owned and issued the order prohibiting the activity, which shall notify the Trade Register on the tribunal whose jurisdiction is based.

THE PROTECTIVE EFFECT OF SOME BIOACTIVE BEE AND VEGETALE PRODUCTS IN EXPERIMENTALLY INDUCED INFECTIONS WITH STAPHYLOCOCCUS AUREUS IN MICE

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Introduction

Some bee products and herbs have antiseptic, antibacterial and healing effect helping the lesions to heal in a shorter time. This study was designed to evaluate cicatrizing and antibacterial properties of bee bioactive products as gels (10%).

Materials and Methods

We used three products with propolis from different sources and four vegetable products of poplar buds (Populus nigra), pine (Pinus communism), birch (Betula pubescens) and willow (Salix alba). Tests were performed on eight groups of white laboratory mice (seven undergone treatment and one control) that were experimentally infected with *Staphylococcus aureus* ATCC 6538P strain. After infection the clinical aspect was monitored daily as lesion score for 22 days. In the fifth day after the infection, one animal from each group was selected and biopsy and subsequent histological examination of harvested tissues was processed.

Results and Conclusions

All gels tested proved healing and antibacterial effects, these effects were more pronounced in the three gels gel with propolis and poplar buds, reducing healing time by 5 days compared with controls and with two days to groups treated with pine and birch buds gels and 3 days compared with the group treated with willow buds gel. All gels showed good adhesion to tissues throughout the experiment, with no side effects or allergic manifestations. The results obtained are consistent with other results cited in the literature by other authors who have studied the antibacterial effect of propolis, and due to its complex composition (rich in flavonoids and phenolic acids) have an important role in healing, antifungal and antibacterial effect.

SOME ASPECTS OF THE HISTORY OF THE ROMANIAN SCIENTIFIC SOCIETIES OF VETERINARY MEDICINE

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The union of the young veterinary surgeons who decided to establish the **Scientific Medical Society of Romania**, at the Veterinary School of Bucharest. The "Statute of the Scientific Medical Society from Romania" drawn in the first meeting of **15 May 1871**, were voted in the general assembly of August 14-16, 1871, chaired by Mauriciu Colben. The Scientific Medical Society didn't have its own journal upon establishment. Therefore, in 1879, Alexandru Locusteanu, Mihai Măgureanu, Gheorghe Perşu and Panait Constantinescu, publish the **Veterinary Surgeon**.

Succeeding to dismiss some difficulties, 33 veterinary surgeons met on 10-12 May 1882 in Bucharest for the **First Congress of Veterinary Medicine**, the first of this kind in Romania. The topics of the congress, set in 1881, included the following subjects: sanitary police, animal husbandry, public hygiene, pathology, miscellanea.

Once the Society of Veterinary Medicine was *relaunched*, the "**Review of Veterinary Medicine"**, with the subtitle: " **Animal Husbandry, Hygiene and Rural Economy**" also appeared and drafted this publication for 35 years. It has been established in 1888 too, by I. Șt. Furtună, and had an Annex, the Bulletin of the Society of Veterinary Medicine.

At its meeting on 21 May 1913 of the III National Veterinary Congress, after extensive debates, it has been voted the following "Resolution": Was first appointed a Commission to draw up draft statutes of the Association then, on 29 June 1914, it held its constituent meeting of the **General Association of veterinarians in Romania**, chaired by **Prof. Al. Locusteanu**. In this meeting, at which 138 veterinarians sent accessions, voted to elect the first committee status and then intervening the First World War until 19 august 1919, by decree of law, the association is recognized as a legal and moral person.

In year 1923, Ion Ștefan Furtună (1860-1937) transferred the review to the patrimony of the General Association of Veterinary Surgeons, as **Bulletin of Association.**

These meetings debated the important problems of the veterinary pathology confronting that period: the foot and mouth disease, of horses glanders, tuberculosis, the bovine gastro-entero-nephritis (babesiosis) etc.

The **Society and General Association of veterinarians in Romania, existed until July 21, 1949**, when, after this last meeting, it was discontinued abusively by the communist regime.

Because the centenary of the Romanian Society of Veterinary Medicine was closing, a group of teaching staff from the Faculty of Veterinary Medicine of Bucharest started in the spring of 1970, the activities necessary to resume the Romanian Society of Veterinary Medicine: it was re-established on May 15, 1971, 22 years after its discontinuation and one hundred years after its foundation. In 1991, GAVSR, it has been resumed the activity 0f "The General Association of Romanian Veterinarians, the magazine reappeared under the name: The Romanian Magazine of Veterinary Medicine, new series.

EFFECTIVE TEACHING-LEARNING METHODS AND TECHNIQUES APPLICABLE TO VETERINARY MEDICAL PRACTICE

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Introduction
Practical training requires skills not only from students but especially from practice coordinators and all those involved in the training process.
This paper highlights the importance of diversifying teaching methods and learning techniques in practical training in veterinary medical field, aiming a more efficient instructive and educational process.
Materials and methods
This study was performed using the methods: investigation and psycho-pedagogical experiment on groups of internships students in livestock units, veterinary laboratories and food processing units.
Results
Within the scientific approach were investigated several teaching and learning methods and techniques: brainstorming, brainwriting, case study , simulation , reciprocal teaching and learning and stellar explosion. After applying these methods and techniques, it was observed a significant progress in understanding and assimilation of content and better transposition of the theory in practice.
Conclusions
Interactive teaching strategies promote active learning, the students organized in small groups are working together and colaborating, to achieve and realize their objectives.

The teacher becomes a facilitator of learning activities, an organizer of a learning environment tailored on students specific needs and particularities

All teaching-learning investigated methods can be used successfully in the practical training of veterinary medical students.

HOW TO GET PUBLISHED IN HIGH IMPACT JOURNALS

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Publishing – is it important? If your research is not published, no one knows about it and it has not been refereed. If you have no publications, difficult to get research grants, as no apparent experience in area. Publications lead to collaboration and this leads to more publications and new research areas. Preparing publications makes you think hard about your work.

Research must be international quality. Does not always require much expense/support. Good ideas, good project design, good team, good chance of success. Teams should cross departments/ Institutes. Only repeat someone else work if it is epidemiologically relevant to Romania.

Publishing your research. Everything starts with a good idea and good design. Check any statistics before planning experiments. Ensures enough samples etc are tested. Must have interesting data – Not just repeat someone else's work. Do not hurry your writing; get help with English if needed. Follow journal instructions. Allow an experienced non-author to review the work

What do you want to publish? Books – write these when you have retired! Romanian book writing system discourages original research. Reviews – may be useful. Original scientific articles are the standard by which we now are judged.

Impact Factor (IF) - How journals are assessed? Calculated from number of times papers are cited. Veterinary journals are lower IF than medical or biological journals.This is because we are smaller group of scientists with small readership of our research. IF may not be very important for you when selecting journal as all veterinary ones are 2.0 or less. Much more important to be ISI journal.

Title: **RESEARCH REGARDING EVALUATION OF RAM'S SEMEN, COLLECTED BY ELECTROEJACULATION, OUT OF THE BREEDING SEASON**

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Key words: reproduction, electroejaculation, ram semen, semen evaluation

Abstract

The study was conducted in March 2012, on a batch of 11 rams (Ille de France and Schwaezkopf). Rams were clinically evaluated and semen was collected by electroejaculation method. Semen was macroscopical (volume, colour) and microscopical (density, viability, mobility) evaluated. At clinical evaluation 3 rams presented testicular modifications, and one ram was diagnosticated with balanopostitis. Collection of semen failed on one ram (aspermia) and 5-9 electrical stimulations were needed to obtain semen. Volume of semen ranged between 0,75 and 5 ml and had white-creamy colour. At microscopical examination sperm waves were present, mobility ranged between 50 and 100%, viability ranged between 60 to 100% and concentration was over 10^9sperm/ml semen. Total number varried between 1 and 7 x 10^9 sperm. After andrological evaluation, 2 out of 11 rams were excluded from reproduction process.

HISTOMORPHOMETRY OF SHEEP (OVIS ARIES) AND GOAT (CAPRA HIRCUS) HUMERUS

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Introduction. The difference at the level of the microstructure of the bone is a topic that has been approached quite long time ago. The present study tries this kind of approach in the new perspectives opened by forensic veterinary medical or archaeozoological investigations.

Matherials and methods. The studied material consisted of bone fragments originating from recent sheep and goat humerus specimens. The bone specimens were cut from the midshaft humerus, manually ground (4-7 mm thickness) with a circular grinding machine, then manually ground. The specimens were cleaned, glued on microscopic slides and examined into direct light microscopy (10x-20x) .Measurements were taken on digital images with ImageJ imaging software.

Results.The primary measurements showed a series of simple metrical differences. All values are expressed as average and standard deviation values. Values for the haversian vascular canal showed little difference for the area in sheep and goat (362.9± 135/326.3± 134 sqμm), similar for the values of the maximum diameter (25.4± 6.7/22.7± 5.1 μm) as the values for minumum haversian canal (19.3± 3.9/18.4± 4.2 μm) and the circularity (0.968/0.977) were not so significantly different as the previous ones. For the values of the secondary osteonal units, the area for ovis specimens was a little higher than the one for the goat specimens (16513.7± 6542/16304.2± 456 sqμm) as the maximum diameter in sheep (164± 85.8) was a little lower than the one in goat (168.5± 37.4). The minimum diameter in sheep (127.2± 22.2) is not significantly different from the one measured for goat specimens (124.7± 18.4). A significant difference in average value was ob served for the primary osteonal values, more precisely in case of the area (275.7± 115 in sheep and 255.2± 136 in goat).

Discussions and conclusions. As these investigations are only in the initial phase, the raw metrical data can be, in a certain extent, used for the differentiation of the bony materials when it comes to differentiate between sheep/goat specimens.

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THE IMPORTANCE OF PIG TONSILS REMOVAL FOR THE FINAL ASSESSMENT OF THE CARCASSES' HYGIENE QUALITY

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Introduction: Although the tonsils removal at pigs is mandatory in conformity with the European Union Regulation 854/2004, there are slaughtering units that do not respect this rule. The importance of their complete removal is shown in this study through a thorough assessment of the bacteria load found in tonsils and afterwards in the carcasses where the tonsils have not been removed.

Materials and methods: For the isolation of these bacteria the classical method was used and the confirmation being performed through biochemical microtest systems (API) and molecular methods (simplex PCR). Also, there were two other automatic ways of bacteria identification: the microscan WALKAWEY system and the Trek system.

Results: The results revealed a polymorphic microflora, with a predominance of Gram negative bacteria in the majority of the tonsil samples examined. The bacteria prevalence in the pharyngeal tonsils was represented by: Gram negative bacilli (32.1%), diplococcic (19.75%), streptococci (16.05%), Gram positive bacilli (13.58%), polymorphic non spore forming Gram positive bacilli (8.64%), spore forming Gram positive bacilli (1.24%) and *Candida* (8.64%). Following the bacteriological exam, a large variety of bacteria species were revealed at the carcasses also, worth mentioning are *Staphylococcus*, *Proteus*, *Streptococcus*, *Listeria and Salmonella* and the prevalence of these species was significantly higher ($p<0.05$) during the warm season than the cold one in both units studied.

Discussion and Conclusion: The pharyngeal tonsils at pig represent a deposit area for some pathogen bacteria (*Yersinia enterocolitica, Staphylococcus aureus, Escherichia coli, Salmonella spp.),* that can contaminate the carcasses during slaughtering and can jeopardize the consumers' health.

RESEARCH REGARDING AORTIC BYPASS IN PIGS

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Bypass consists of building a new circuit that passes the aterial obstuctuion by putting the permeable segments together (proximal and distal). The biomaterial used was based on Dacron. The investigation were performed on two pigs of the same age and weight, at the discipline of Pathology and Clinical Surgery in Veterinary Medicine, Cluj-Napoca.The cardiovascular anatomy has made them a universally standard model for the study of atherosclerosis, myocardial infarction and fundamental cardiovascular studies. After a thorough preparation of the animale (neuroleptanalgezia and preoperatory preparations) the first incision was made, the surgical technique consists in white line laparatomy. After indentifying, isolating and securing, the aorta was clamped proximal and distal. The bypass procedure was done by using the right Dacron prosthesis graft according to the length and the diameter of the blood vessels. The surgical procedure used was the "in and out technique, taking first the Dacron graft and then the vessel. Aortoiliac bypass using Dacron has a lot of advantages, Dacron proving to be a very well tolerated biomaterial by the organism. As a rule the anastomosis must be kept clean, without blood, although a blood clot may by forming around the raffia's line. Of course after the proximal forceps release we must see the pulsatile arterial flood through the Dacron prosthesis. After the surgery during the first 3 days, posterior limb edema is found, difficulty in movement, low intake of food, symptoms that go away at the end of the first week post surgery. We can conclude that that the synthetic Dacron grafts used in human medicine can be used with good results in vascular prostheses in animals.

THE EVALUATION OF THE ANTIMICROBIAL RESISTANCE OF *ESCHERICHIA COLI* AND *SALMONELLA* SPP. STRAINS ISOLATED FROM RAW MEAT

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Introduction: The antimicrobial resistance of the most probable pathogen germs isolated from raw meat has not been tested thoroughly yet in our country. The transmissibility of this resistance from food to human has been previously described in the foreign literature that is why such a complex study is mandatory given the current situation.

Materials and methods: For the isolation and antimicrobial resistance assessment, the classical method was used, the confirmation being performed through molecular methods (simplex PCR). In the antimicrobial evaluation the automatic system TREK was used.

Results: The majority of the *Escherichia coli* strains isolated from the meat samples were confirmed as non-pathogenic ones but revealing a high number among them as being resistant to ampicillin and enrofloxacin. The *Salmonella* spp. bacteria isolated was found in a lower amount and with a high prevalence of resistance to cefazolin, cefuroxime and tetracycline.

Discussion and Conclusion: Although a lot of food poisoning episodes are treated in the infectious diseases hospitals with ampicillin, enrofloxacin and tetracycline it has been shown in this study that these antibiotics might not have the wanted effect. We recommend the antibiogram in every case given the fact that these bacteria have become more and more resistant due to improper use of antibiotics in animal feed, animal illnesses and human diseases.

Research and observation on clinical and therapeutic aspects regarding Stiker Sarcoma in dogs

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Transmissible venereal tumor, also known as infectious sarcoma or Sticker tumor, has a different incidence from one race to another although the range is known as a cosmopolitan character disorder. In our study. In our cases the incidence was 23%. The initial lesions are superficial, small pink to red, 1 mm to 3 mm diameter nodules can be observed, then multiple nodules fuse together forming larger, red, hemorrhagic, cauliflower-like, friable masses, that draws the owners attention. Tumors bleed easily and while becoming larger, normally ulcerate and become contaminated (Hoque, 2002). For this study two groups were used, the first group included 11 dogs, the second group 12 dogs, different race and age, all males, raised in freedom, with little socialization with other dogs. For the first group the treatment was made with vincristine sulfate at a dose of 0.025 mg/kg, i.v, administered weekly, for a period of 7 weeks. The second group was treated with vinbleastina at a dose of 0,1 mg/hg i.v, administered weekly, for 6 weeks. The best results were with vincristine, 95%, while the results for the treatment with vinblastine were between 85-95%.

Faculty of Veterinary Medicine Bucharest contribution to ensuring the necessary veterinary professionals in Romania of 2012

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A statistical based on the bibliographic file on publication published 2010-2012 in 2012 by the General Association of Veterinarians of Roumania presents numerical position in the number of veterinarians in the 41 county organizations. Focusing on the contribution of graduates of the Faculty of Veterinary Medicine Bucharest, comparing the number of graduates coming from that institution with university status given by the other three state universities (Cluj, Iasi, Timisoara) also appreciating (again statisticaly) alumni concerns for continuing professional training

Keywords: veterinary care, education, military, legislative, administrative

THE POTENTIAL ZOONOTIC RISK DUE TO CLOACAL FLORA IN INTENSIVELY RAISED BROILERS

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Introduction. *Escherichia coli* is one of the main inhabitants of the intestinal tract of most mammalian species and birds. In veterinary medicine, the presence of microbial carrier estate led to numerous studies on the presence, persistence and importance of *E. coli* in broiler chickens and has motivated epidemiological studies on bacterial contamination levels on the farms.

Materials and methods. Swabs from cloaca of intensively raised broiler chickens were randomly (2%) sampled along with sanitation samples after disinfection on the same farm. All samples were processed by use of conventional, OIE approved, bacteriological techniques to identify bacteria indicationg fecal pollution of zoonotic importance. Strains passed to selective media were biochemically tested and identified by use of API20E kits (France, Lyon).

Results and conclusions. The most important bacterial strain in the cloaca isolates was *E. coli* (68.75%), followed by *Proteus vulgaris* (18.75%) and *Escherichia hermannii* (12.5%). After disinfection, the swabs from surfaces tested constantly positive for *Proteus spp*, which proved to resist to broad spectrum disinfectants applied repeatedly, according to the technology. Both bacteria with pathogenic potential from the carried microbial flora and those isolated from surfaces represented a major risk, and could constitute a major cause of epidemic outbreaks under inappropriate technological circumstances.

DIAGNOSTIC VALUE OF BLAST TRANSFORMATION TEST IN *SALMONELLA* POSITIVE HENS

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Introduction. Germs of the genus *Salmonella* are considered of major risk in humans, inducing severe food borne infections. As alimentary products, both poultry meat and eggs could represent a primary source of such infections. The investigations aimed to evaluate the adaptive cell-mediated immune response in *Salmonella* carrier versus vaccinated hens.

Materials and methods. Laying hens, 80 weeks of age, positive for *Salmonella* infection by microbiology and serology (slow agglutination test) (n=10), vaccinated against *Salmonella pullorum* infection (n=10), and negative, non-vaccinated hens (n=10), were used to investigate the blast transformation response in un-stimulated and PHA stimulated whole blood cultures. An orto toluidine glucose detection test was used to quantify the glucose consumption and calculate stimulation indices. Statistical significance of the results was calculated by use of Student's t test.

Results and conclusions. The results indicated a statistically significant difference ($p<0.01$) between the serologically positive (IS 78.05±13.48 %), control (11.98±12.23%) and vaccinated (17.59±10.27%) groups in untreated cultures. Similarly, the latent infection significantly ($p<0.01$) increased the response to PHA in the positive group (76.90±9.65%) when compared to the responses in both control (17.65±10.49) and vaccinated (30.86±15.57) groups. It was concluded that naturally occurring *Salmonella pullorum* infection acted as a much stronger stimulus in conditioning the *in vitro* cell-mediated adaptive immunity than vaccination with a live vaccine in hens.

CHANGES IN THE *IN VITRO* CELL MEDIATED IMMUNE RESPONSES OF HENS INFECTED WITH EGG DROP SYNDROME VIRUS

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*Introduction**. EDS induces economic losses in breeding units due to egg shells damage and diminished egg quality. Although the major protective factor is being represented by antibodies, cell-mediated immunity is important, ensuring the resistence to other intercurrent pathogens.***

Materials and methods. The researches were carried out on EDS-serologically positive laying hens (n=27), diagnosed by a clasical hemagglutination inhibition test. Blood samples were taken on heparine (50 IU/ml) by puncture of the wing vein. The carbon particle inclusion test was performed by incubating 0.5 ml of each blood sample with 2 microliters of India ink, and reading the optical densities of the supernatants after incubation and centrifugation. Ln of the optical densities were calculated. To estimate the blast transformation index, blood was mixed with with RPMI culture medium (1:4) and incubated for 48h. Alcoholic vegetal extractions and a virus suspension were used in addition to the cultures. An orto toluidine test was used to measure the glucose consumption of the cells. All the obtained data were statistically interpreted and the correlation coefficients betwen the two tests were calculated.

Results and conclusions. The results indicated a more pronounced phagocytosis (ln/min) than the physiological one (0.121±0.01 compared to 0.216±0.024), negatively, statistically not significantly correlated (r=-0,245) with the in vitro viral inhibition (-106.53±58.41%). Positive correlations were obtained after in vitro treatments with *Symphitum officinale* (r=0.256) and *Echinacea purpurea* (r=0.024) extractions. It could be concluded that the EDS virus infection induced changes in both innate and adaptive sides of the immune response and that the used vegetal extracts had a beneficial *in vitro* influence.

ULTRASONOGRAPHIC FINDINGS IN A COW WITH AN ABDOMINAL ABSCESS TOLGA KARAPİNAR, ESENGUL YİLDİRİM

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This study describes clinical and ultrasonographic findings in a cow with an abdominal abscess. A 5 year old Simmental cow with a history of anorexia, bloat, weight loss and depression was brought to the Firat University Veterinary Teaching Hospital. Upon clinical examination, values for rectal temperature, pulse and respiratory rate were 38.8^{o}C, 68 beats per minute and 28 breaths per minute, respectively. An ultrasonographic examination of the abdomen was performed. An abdominal abscess was detected as echogenic with hyperechogenic foci from approximately 12 cm left of the median line to the right of the median line. The abdominal abscess had a distinct and well-developed capsule, which appeared as a hyperechogenic line that demarcated the contents of the abscess from the neighboring organs. Hyperechogenic fibrin deposits interspersed by anechogenic fluid pockets were determined on left ventral abdomen between the abdominal wall and the rumen just in front of the udder. Diagnosis was confirmed by centesis and aspiration contents. Approximately 13.5 liters of purulent material was removed from the abdomen and a penicillin-streptomycin combination was administered 10 days. The cow became appetent one day after the post purulent material was removed and made steady improvements over the following days. The cow was returned to our clinic 25 days later. Clinical and an ultrasonographic examination were performed. Although clinical improvement was obvious, abscess formation was seen approximately 12 cm right of the median line during the ultrasonographic examination. Approximately 1.5 liters of purulent material was removed from the right ventral. Ceftiofur was administered for 5 days. Obvious steady improvement was noticed in the following days.