RESPIRATORY EXPOSURE TO BENTONITE PARTICLES ON RAT – HISTOPATHOLOGICAL AND CYTOLOGICAL EVALUATIONS

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Key words: bentonite, airway cells, rat, respiratory exposure

SUMMARY

Our research objective was to evaluate the effects of respiratory exposure to bentonite particles, by analyzing the bronchoalveolar lavage liquid and the pulmonary tissue lesions. The experimental study was realized on rats (Wistar strain, males). The pollution agent used was bentonite particles (O-77,19%, Si-13,6%, Al-6,01%, Fe-1,38%, Na-1,03%, Mg-0,3%, Ti-0,16%, Ca-0,16%, K-0,15%.) with a medium size under 10μm. The exposure methods: intranasal, intratracheal instillation and exposure by ventilation. The inflammatory pathways are activated by bentonite exposure in rats, all the inflammatory phenomenon's being increase in the animals groups that were chronically exposed to bentonite. The cells from bronchoalveolar lavage fluid were dominated by alveolar macrophages and bi- or trinucleated cells. The inflammatory lesions were characterized by increasing of the alveolar macrophages, polinucleated cells, interstitial infiltration with inflammatory cells and the thickening of the alveolar walls. The exposure methods applied in this experiment can be easily used for future animal testing models in this domain.

ASPECTE HISTOSTRUCTURALE ÎN UNELE DERMATOPATII NEBACTERIENE LA CARNIVORELE DOMESTICE

HISTOSTRUCTURAL ASPECTS IN SOME NON-BACTERIAL DERMATOPATHIES IN DOMESTIC CARNIVORES

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Cuvinte cheie: dermatopatie, melanocit, limfocit, mastocit, keratinocit
Key words: dermatopathy, melanocyte, lymphocyte, mastocyte, keratinocyte

SUMMARY

The researches were made on 10 dogs which presented different primary and secundary cutaneous lesions: hyperkeratosis, edema, vesicles, pustuls, papulle, hyperpigmentation and crusts.

The histological specimens were drawn through biopsic puncture and dipped in sollution of saline neutral formol, being processed with paraffine and coloured with hematoxyline eosine, trichromic Mallory, cold Giemsa and toluidin blue.

There were observed histopathological changes in superficial dermic layer and in epidermic layer, represented by limpho-histiocitar infiltrations at the limit between dermic and epidermic layers, local melanophoric cells proliferations, even cells migration through basal membrane in the basal and spinosum stratum, as well as changes in corneum layer of epiderm (hyperkeratosis and vacuolar degeneration).

EVALUAREA MORFOLOGICĂ A LEZIUNILOR GLANDULARE DIN REGIUNEA PERIANALĂ LA CÂINE

MORPHOLOGYCAL EVALUATION OF GLANDULAR LESIONS IN PERIANAL AREA IN DOG

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Cuvinte cheie: glande perianale, leziuni, câine
Key words: perianal glands, lesions, dog

SUMMARY

Perianal region in dog is quite complex concerning structure, being the location of many glands wich can undergo neoplasic progression

This study considered 53 dogs with perianal nodules. 35 cases were represented by tumors after surgical removal, and 18 cases considered fine needle aspiration. Cytological investigation used May Grunwald Giemsa imprints and smears. Fragment of nodules were fixed in 10% solution of formaldehyde, paraffin embedded and Masson trichromic stained. 12 cases (23%) from all 53 cases were females and 41 cases (77%) were males. The median ages was 10 – year – old, with limits between 4 – year – old and 15 – year – old. The largest incidence was in intact cross – breeded males (32%), Caniche (15%), Pechinese (10%). 71% of nodular lesions developed in perianal region, 23% on the tail, 4% close to prepuce and 2% on thigh.

The diagnosis in glandular lesions of perianal region was adenomas in 64,5%, epitheliomas in 23%, hepatoid cell carcinomas in 8,3% and adenocarcinomas of apocrine glands of anal sac in 4,2%. Mast cell tumors, lypomas, fibrosarcomas and papilloma were diagnosed also.

INVESTIGAȚII PRIVIND EPIDEMIOLOGIA ŞI MORFOLOGIA PUBERTĂȚII ÎNTÂRZIATE LA SCROFIȚE

INVESTIGATION OF EPIDEMIOLOGICAL AND MORPHOLOGICAL DELAYED PUBERTY IN GILTS

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Cuvinte cheie: epidemiologie, morfologie, pubertate întârziată, anestru, scrofițe
Key words: epidemiology, morphology, delayed puberty, anestrus, gilts

SUMMARY

The aim of this paper was to evaluated epidemiological delayed puberty in gilts in a breeding unit, as well as identifying the morphological changes asociateted with it.

The study was conducted on a number of 470 gilts from the Large White, Landrace, LS345-Peris, and Duroc, which have not manifested the first estrus until the 230 days of age. Tissue samples from 11 gilts were taken, represented by fragments of genital system used for histological investigation. Grossly, uterine and ovarian hypoplasia was found in 25% of examinated gilts. The most affected breed was Landrace and the less affected was Large White. Histologically, severe degeneration of ovarian follicles and specific aspects for anestrus in uterus was diagnosed.