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Pathomorphological and immunohistochemical findings of subacute lobullary calcifying panniculitis in two cats

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Calcifying panniculitis is a rare condition belonging to the spectrum of calciphylaxis. It is probably developed as cutaneous manifestations of possible due to calciphylaxis in renal failure, hyperparathyroidism. In these type of cases, there are adipose tissue with calcification and necrosis. It was, in two cases, aimed to reveal out different characteristics of calcifying panniculitis in cats. Two biopsies taken from lumbosacral region of 8-month old and 1-year old, male and mix breed cats were evaluated. After macroscopical examination, tissues were fixed in formalin, processed routinely and embedded in paraffin. Sections were stained with Hematoxyline-Eosin, Alizarin Red S method for revealing calcification and Masson's Trichrome method for differentiating connective tissue. Then, immunoperoxidase (ABC-P) method was applied on adhesive sections by using CD3, vimentin, alpha-1 antichymotrypsin (A1AC) markers. Macroscopically, there were masses in different sizes varying from 1.5 to 2.5 in diameter. The masses had generally firmness and grayish-white color. Histopathology revealed out necrotic and degenerated fat cells in lobules of subcutaneous fat tissue. In some areas, there were lymphocyte, macrophages and neutrophile leucocytes infiltrations and connective tissue proliferation. And also, there were large calcifying areas at the center of degenerated-necrotic fat lobules. Alizarin Red S detected to calcifying areas and Masson's trichrom differentiated to connective tissue proliferation. In ABC-P, CD3 slightly reacted with lymphocytes and lymphoblasts. Vimentin moderately reacted with connective tissue proliferation at periphery of necrotic areas and septum. A1AC reacted in cytoplasm of macrophages and peripheral necrotic areas. In conclusion, such cases are not documented in veterinary pathology. It is believed that two cats had possibly renal deficiency problem or nephrotic syndrome in pathogenetic mechanism. Additionally, A1AC expressions were found notably despite of A1AT deficiency taken place in serine proteinase inhibitor.

Biography

Mehmet Eray Alcigir has completed his PhD thesis in Department of Pathology, Faculty of Veterinary Medicine, Ankara University in 2011. PhD Thesis: "Evaluation of The Pathomorphological, Immunohistochemical Findings and *in-situ* PCR in Experimental Adenovirus Infections in Chickens". Main areas have been about neoplasia, genital system and central nervous system disorders and experimental diseases in laboratory animals. He has been many experiences on immunohistochemical methods, *in-situ* PCR and chromogenic ISH. He has been working as doctor since 2012. He is also responsible for Administrator in Department of Animal Welfare of Laboratory Animal Unit, Faculty of Chemistry and Faculty of Science, Ankara University.

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