ENCAPSULATING PERITONEAL SCLEROSIS: CASE REPORT IN A MAINE COON CAT

L. Sonck, L. Van Brantegem and K. Chiers

Department of Veterinary Pathology, Bacteriology and Poultry Diseases, University of Ghent, Belgium

Introduction: A 10-month-old Maine Coon cat was presented with acute vomiting and a marked ascites. Blood examination, ultrasound, radiography and exploratory laparatomy did not result in a diagnosis. Necropsy examination and histology revealed a case of encasing peritoneal sclerosis.

Materials and Methods: A necropsy examination was performed and tissue samples were taken from all abdominal organs and lungs. Slides were stained using standard HE, Giemsa and Masson's trichrome. Immunohistochemistry was performed for CD3, CD20, MAC387, MHCII, c-kit, vimentin, α-smooth muscle actin, desmin and cytokeratin.

Results: All abdominal organs were covered in a thickened layer of peritoneum, encasing and distorting their shape. Histologically, the peritoneum consisted of dense collagenous tissue with active fibroblasts, multifocal aggregates of lymphocytes and plasma cells, neovascularization and dilated lymphatics and a diffuse influx of mast cells. Immunohistochemistry revealed aggregates of CD3- and CD20-positive cells, induction of MHCII in the underlying tissues and a strong proliferation of both α-smooth muscle actin- and vimentin-positive cells (myofibroblasts).

Conclusions: A diagnosis of encasing peritoneal sclerosis was made, previously called sclerosing encapsulating peritonitis. This is a rare disorder in which a chronic peritonitis leads to a marked fibrotic reaction. It is a well-known complication in human medicine as a reaction to peritoneal dialysis in end-stage kidney patients. In veterinary medicine, half of cases are idiopathic; the rest are linked with singular causes such as peritonitis, steatitis or cases of ingestion of fibreglass.

IMMUNOHISTOCHEMICAL ANALYSIS OF T LYMPHOCYTES ($CD3^+$) IN FELINE MAMMARY LESIONS

F. Seixas*,†, D. Antunes* and M.A. Pires*,†

**Laboratory of Histology and Anatomical Pathology (LHAP), Veterinary Sciences Department and †Animal and Veterinary Research Centre (CECAV), University of Trás-os-Montes e Alto, Portugal*

Introduction: Lymphocytes were originally thought to form the basis of 'cancer immunosurveillance' and during the past decade insights have been focused on mechanisms underlying the dynamic interplay between immune cells and tumour cells. In man and dogs, several studies suggest that certain types of inflammatory cells may intervene in tumourigenesis and tumour progression. Herein, we aimed to study the $CD3^+$ T-cell population in a series of feline mammary lesions.

Materials and Methods: Paraffin wax-embedded tissue sections from 71 mammary lesions were analysed by immunohistochemistry to demonstrate $CD3^+$ T lymphocytes. Cell counting was done blindly in ×400 high-power fields (HPFs). Positive cells were evaluated in the tumour, at the periphery of the tumour and in the non-tumoural mammary gland adjacent to tumours, when present in 10 fields of each area. Four non-neoplastic ('normal') glands from queens devoid of mammary tumours were also studied.

Results: Significant differences were achieved between $CD3^+$ counts in non-neoplastic lesions, benign and malignant tumours, with carcinomas exhibiting the highest $CD3^+$ cell counts inside and at the periphery of the tumour. Although differences were observed with histological grade, no significance was achieved. Regarding the non-neoplastic mammary gland, the gland adjacent to malignant tumours showed the lowest counts.

Conclusions: This study suggests a positive relationship between T lymphocytes and the aggressiveness of feline mammary lesions that may be associated with cancer immunoediting.