

SURGICAL MANAGEMENT OF INTESTINAL FIBROSARCOMA IN A DOG

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An eight year old male Rottweiler was presented to Department of Veterinary Surgery and Radiology, with a history of anorexia, recurrent vomition and pasty tarry faeces since fifteen days, physical examination revealed palpable abdominal mass, confirmed by radiography. Under general anaesthesia exploratory laparotomy was performed, the mass involving antimesenteric borders of jejunum was excised along with the intestine and surgical wound closed in routine manner. Grossly outer surface of the mass was homogenous and thick revealed a purulent content inside. Histopathological report of mass was suggestive of fibrosarcoma.

Keywords: Enterectomy, Exploratory Laparotomy, Fibrosarcoma.

Fibrosarcoma is a common neoplasm that occurs in dogs, cats and other domestic animals. The skin and subcutis are the primary sites of occurrence of fibrosarcomas in dogs and other domestic animals. But these can develop anywhere in the body such as the heart (Speltz *et al.*, 2007), liver, kidney, urinary bladder (Olausson *et al.*, 2005), uterus (Govaere *et al.*, 2011), omentum (Rayner *et al.*, 2010), trachea (Mahler *et al.* 2006) and, on rare occasions, in the mammary gland. Primary malignant intestinal tumours are rare in dogs, and they may cause clinical signs of luminal obstruction, intestinal dysfunction and intestinal ulceration and/or perforation, resulting in septic peritonitis. In domestic animals, adenocarcinoma, leiomyosarcoma and hemangiosarcoma are the malignant intestinal tumours with the highest incidence. Primary intestinal fibrosarcoma (PIF) in dogs is rarely described in the Veterinary literature. In this present report a case of Primary intestinal fibrosarcoma (PIF) in an 9-years-old Rotwiller that originated from the wall of the jejunum is described

Case History and Surgical Management

An eight-year-old male Rottweiler was initially referred with a history of anorexia, vomition and waning clinical signs of

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intermittent diarrhoea, and occasionally constipation of several weeks. Haematological analysis solely revealed normocytic-hyperchromic non-regenerative anaemia : RBC $-5.4 \times 10^6/\mu\text{l}$, HB $- 9.1\text{g/dl}$, PLT $- 249 \times 10^3/\mu\text{l}$, WBC $- 16.6 \times 10^3/\mu\text{l}$, Neutrophils- 84.8%, Lymphocytes- 6.1 %, Monocytes - 9.1% Blood biochemistry revealed SGPT- 13.4 IU/L, Creatine- 1.13mg/dl. Physical examination confirmed the presence of a palpable abdominal mass and abdominal distension. In a plane radiograph od abdomen revealed radio dense mass at 4th to 6th lumbar vertebrae (Fig. 1). In an ultrasonographic investigation, a heterogenous cystic structure whose walls were hyperechoic and which had irregular and a thick dorsal wall and a thin ventral wall was determined at the caudal side of the stomach (Fig. 1B)..

At the exploration of the abdominal cavity, a mass was seen caudal to the stomach and over the jejunum (Fig. 2). The intestinal segment affected by the mass was excised by enterectomy. Meccentric blood vessels were ligated with 2-0 catgut. The incision was closed with a single layer of Cushing pattern by using 3-0 PGA with swaged-on needle. Patency of sutured intestinal site was checked by milking intestinal content from proximal

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to distal segment. Muscular layer was sutured with 1-0 polyglactin 910, in simple interrupted pattern, skin was sutured with no.1, monofilament polyamide with cross



Fig 1 . Plane radiography – radio dense

Results and Discussion

The recovery was uneventful. In dogs, peritonitis due to ruptures associated with intestinal ulcers is a common clinical finding. In the present case, as tumour development outwards from the intestinal wall and the



Fig 2. Mass attached with the jejunum

Conclusions

Therefore, in such masses developing in the abdominal region, diagnosis should be firmly supported by histopathological findings. In such cases where the intestinal wall is not completely disrupted, the early diagnosis and treatment should be done.

References

Govaere, J., Maes, S., Saey, V., Blancke, W., Hoogewijs, M., Deschauer, C., Smits, K., Roels, K., Vercauteren, G. and de Kruif, A. (2011). Uterine fibrosarcoma in a warmblood mare. *Reproduction in domestic animals*, **46**(3): 564-546.

Mahler, S.P., Mootoo, N.F., Reece, J.L. and Cooper, J.E. (2006). Surgical resection of

matress. Part of the intestine along with the tumour mass (Fig. 3) was sent to the pathology laboratory for histopathological examination.



Fig 1B. Anechoic structure on USG

structure of the intestinal wall was not disrupted. In addition, at macroscopic examination, a mass with a solid appearance was apparent which had a pyogranulomatous structure surrounded by a thick connective tissue (Figure 3).



Fig 3. Removed Mass

a primary tracheal fibrosarcoma in a dog. *Journal of Small Animal Practice*, **47**(9): 537-540.

Olausson, A., Stieger, S.M., Lofgren, S. and Gillingstam, M.A. (2005). Urinary bladder fibrosarcoma in a young dog, *Veterinary Radiology & Ultrasound*, **46**(2): 135-138.

Rayner, E.L., Scudamore, C.L., Francis, I. and Schöniger, S. (2010). Abdominal fibrosarcoma associated with a retained surgical swab in a dog. *Journal of Comparative Pathology*, **143**(1): 81-85.

Speltz, M.C., Manivel, J.C., Tobias, A.H. and Hayden, D.W. (2007). Primary cardiac fibrosarcoma with pulmonary metastasis in a Labrador retriever. *Veterinary Pathology*, **44**(3): 403-407.