



MALIGNANT HISTIOCYTOMA OF SPLEEN IN A LIONESS (*Panthera leo*)

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Malignant fibrous histiocytoma (MFH) or malignant tumor originating from histiocytes has been reported only rarely in animals (Marcin *et al.*, 2009). In most reported animal cases, it has been described as single, often invasive, soft tissue mass in skin or subcutis. Most splenic masses described in canines are either hemangiomas or hemangiosarcomas while in felines they are mast cell tumors or lymphosarcomas (Moulton, 1990). Hendrick *et al.*, 1992 described six cases of malignant fibrous histiocytoma in canine spleen.

A 13 years old lioness carcass was brought to the institute for necropsy from Lion safari park of Neyyar wildlife Sanctuary with a history of sudden death. The animal was a bit lethargic and weak since a month but was feeding normally till the day of death. Necropsy examination revealed a solitary mass of 10cm diameter on spleen (Figure 1) with a rupture point at the centre of the mass on the ventral side. The tumor was soft, pulpy and dark reddish and cut surface bled profusely. Abdominal cavity contained 5-6 liters of blood tinged fluid. There was no gross evidence of distant metastases.



Figure 1: Spleen with tumour mass

Histologically the tumor was highly vascular, well circumscribed but unencapsulated and

composed of sheets of highly pleomorphic histiocytes with poikilocaryosis (Figure 2). The nucleus was vesicular and hyper chromatic with a few mitotic figures. Sinuses were dilated with blood. Inflammatory cells were totally absent and parenchyma revealed only few lymphoid cells. Even though the gross appearance of mass was indicative of hemangioma, histological features fit in the classification scheme of malignant histiocytomas (Enzinger and Weiss, 1988). The examination of sections taken from different areas of the mass confirmed the findings. In addition, histological examination of other visceral organs demonstrated no evidence of metastasis to any other organs or tissues.

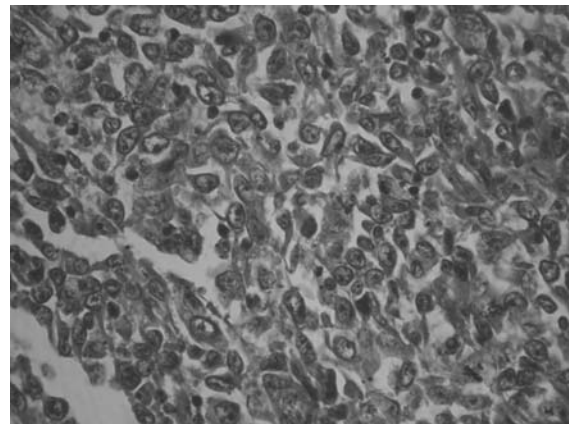


Figure 2 : Tumour section showing pleomorphic histiocytes, H&E x 100

The prognosis of splenic tumors are graded as “guarded” as most splenic masses tend to rupture causing the spleen to bleed and eventually leading to death. Study showed that the average survival was 61 days from recognition of the tumor in canines (Marcin *et al.*, 2009). In the present case also, the sudden death was due to shock consequent to the rupture of the tumor and

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bleeding. It seems that in this case, similarly to some other tumors in animals, such as mammary carcinoma in bitches, no distant metastasis developed despite the histologically clear malignant character of the tumor probably due to some mechanisms which block or restrict metastasis (Marcin et al., 2009). There is one report of this tumor involving spleen, liver and kidney of a pig and spleen was presumed to be the primary site (Tanimoto *et al.*, 1988). In a study of six cases of malignant fibrous histiocytoma in canine spleen, metastasis was observed only in one case (Hendrick *et al.*, 1992). The present communication describes a rare case of malignant histiocytoma of spleen in a lioness. Perusal of available literature did not reveal any such cases in lions and the case is believed to be the first in Leos.

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