

Clinical Article

**SURGICAL MANAGEMENT OF A RARE CASE OF PERINEAL
LEIOMYOSARCOMA IN A DOG**

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Abstract: This paper reports a rare case of perineal leiomyosarcoma in a mongrel dog and its excision by blunt dissection under anesthesia using Atropine sulphate, Xylazine, Ketamine and Diazepam. Animal recovered without any postoperative complications within a period of ten days.

Keywords: Leiomyosarcoma, Mongrel dog, neoplasms, perineum.

Introduction

Neoplasm can be defined as an abnormal mass of tissue, the growth of which exceeds and is uncoordinated with that of normal tissue, and persists in the same excessive manner after cessation of the stimuli evoking the change. They may be benign or malignant. Malignant neoplasms may cause life threatening to animals. Leiomyosarcomas are slow-growing malignant tumors of smooth muscle origin found primarily in the liver, spleen, caecum, small intestine, uterus and deep soft tissues of domestic animals (Kapatkin et al., 1992). Although this type of tumors occur in dogs of any age or breed, but mostly observed in senile animals (Reis-Filho et al., 2003). This paper reports surgical management of a rare case of leiomyosarcoma in a dog.

Case History and Observations

A seven year old male mongrel dog was presented to the clinic with a history of progressive increase in the size of the swelling at the perineal region since one month. Further owner reported a history of inappetence and constipation since fifteen days. Clinical examination revealed a firm tennis ball sized mass at the base of the tail towards rectum. Fine needle aspiration cytology confirmed it as a neoplastic growth. No, clinical symptoms of metastasis like exercise intolerance, respiratory distress etc. were observed.

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Treatment and Discussion

The animal was withdrawn food for 24 hours and water for 12 hours. After fasting the dog was premedicated with atropine sulphate @ 0.04mg/kg body weight and induced sedation with xylazine hydrochloride @ 1mg/ kg body weight. The perineal region was aseptically prepared. The animal was maintained anesthesia with ketamine and diazepam @ 5 mg/kg body weight and 0.5 mg/kg body weight respectively through intravenous route. A curvilinear incision made directly on the growth and separated it from the surrounding tissues by blunt dissection with proper ligation of blood vessels (Fig:1) using chromic catgut no.0. The skin wound was closed by simple interrupted sutures with black braided silk (Fig:2). Postoperatively it was administered with cefotaxime sodium -500 mg for seven days and meloxicam-0.5 ml for three days besides daily dressing of the wound with povidone iodine solution. Animal was administered 0.5 ml cremaffin BID for five days. Skin sutures were removed on 9th post operative day and defecating normally without constipation. No metastasis was observed over the next three months of post surgery.

Macroscopically the tumor was about a size of a tennis ball (Fig: 3) and 150gms in weight. On cross section of tumor it is grayish white color, lobular appearance with hemorrhagic foci at some areas. The tissue sample was fixed in 10% buffered formaldehyde solution. After passed through graded alcohol and xylol series, the tissue was embedded in paraffin. Five micron thick sections were cut from the paraffin blocks and subjected to Haematoxylin- Eosin staining. Histopathologically a well differentiated leiomyosarcoma was diagnosed. In tumor cells cytological atypia and mitotic figures were prominent. The tumor was composed of spindle cells with elongated or cigar shaped nuclei and abundant eosinophilic cytoplasm which was arranged in intervening fascicles (Fig:4). Some areas of tumor mass revealed inflammatory reactions with mononuclear and polymorphonuclear inflammatory cells.

In the present case constipation observed might be due to pressure of this extramural growth on rectum. The occurrence of same type of neoplasm was reported in different parts of the body including prostate gland (Hayden et al., 1999), gastro intestine (Cohen et al., 2003), uterus (Serin et al., 2010) and conjunctiva (Yumusak et al., 2014) in dogs. It is concluded that Owners should be advised for early report of these cases to the clinics which may increase the life span of the animals with limited metastasis to the other organs.

Summary

A rare case of perineal leiomyosarcoma in a mongrel dog was successfully excised and obtained satisfactory postoperative results.

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FIGURES

Fig: 1. Photograph showing separation of leiomyosarcoma from the surrounding tissues



Fig: 2. Photograph showing postoperative skin sutures

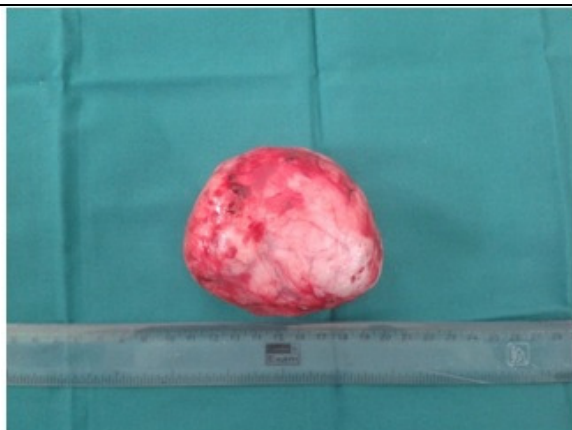


Fig: 3. Photograph showing separated Leiomyosarcoma

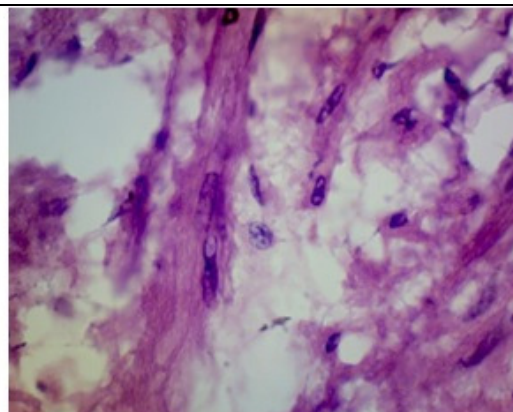


Fig: 4. Microphotograph showing multinucleated spindle shaped cells