

SURGICAL MANAGEMENT OF A MASSIVE FIBROMA IN NECK REGION IN A PUP

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SUMMARY

A one and half-month-old street pup, weighing 2.5 kg was presented with a history of massive mass hanging on the left side of the neck region from the last 20-25 days. Due to the weight of the mass, the pup showed in-coordination in gait. Radiographic and ultrasound examinations of the growth revealed soft tissue opacities. Physiological parameters of the pup were within normal range. The tumour was surgically resected under general anaesthesia in a routine surgical manner and the pup recovered uneventfully with no reoccurrence up to 8 months. Histopathology of the mass confirmed it to be a fibroma.

Keywords: Cervical, Fibroma, Neck, Pup, Resection, Surgery

The skin is the largest organ of the body and the tumours affecting it or the tissues underlying it are common in dogs (Villalobos, 2019). The most common types of tumours involving skin or adnexa are; malignant melanoma, mast cell tumours, squamous cell carcinoma, histiocytic cell tumours, fibrosarcoma and hair follicle tumours (Tostes *et al.*, 2017). About 60-80% of the skin tumours in dogs are benign (Intile, 2017). Surgical removal is the most common treatment method reported for such tumours (O'Brien, 2003). The present report describes a rare case of massive fibroma in the dorsal cervical region and its successful surgical excision in a pup.

A one and half months old street pup was brought with the history of an unusual mass in the dorsal cervical region hanging at the left side of the neck (Fig. 1) for the last 20-25 days. According to the owner, earlier the mass was increasing gradually but from the last few days, it had increased rapidly and the pup was unable to bear the weight of mass leading to in-coordination in gait. Physical examination revealed the mass to be soft tissue with only integumentary attachment on the dorsal cervical spine. The weight of the mass was also tilting the head on one side. All the physiological parameters were normal and pup was alert and active. Lateral radiograph of the neck region revealed soft tissue opacity of the growth (Fig. 2) which was further confirmed upon ultrasonography (Fig. 3). Surgical resection of the mass under general anaesthesia was decided with the consent of the owner.

On the day of surgery, the pup was prepared aseptically. Induction and maintenance of general anaesthesia was achieved by intravenous administration of propofol (Neorof; NEON, Laboratory Ltd, Andheri, Mumbai) @ 4mg/kg body weight. An elliptical skin incision was made at the base of the mass and tumour was

bluntly dissected out along with skin. The surgical wound was closed by opposing the subcutaneous tissue with chromic catgut no. 1/0 and skin by nylon suture. The weight of mass was 800 g which was 32% of the total body weight (2500 g) of the pup.

Excision biopsy was taken for histopathology which revealed the presence of elongated spindle-shaped cells (plump cells) with a variable amount of collagen (Fig. 4), confirming it to be fibroma. Postoperative care included antibiotics inj. ceftriaxone (Monocef; Aristo Pharmaceuticals Pvt. Ltd.) @ 20 mg/kg body weight intravenously for 5 days and analgesic inj. meloxicam (Melonex; Intas pharmaceuticals Ltd., Gujrat, India) @ 0.2 mg/kg body weight, once a day for 3 days, intramuscularly. Skin sutures were removed on the 12th postoperative day. Telephonic follow up, upto 8 months, revealed the pup to be healthy with no reoccurrence.

Sischo *et al.* (1989) reported skin tumours to be the second most frequently diagnosed types of dermatological abnormalities, while hypersensitivity to flea bites is the first in ranking. The high incidence of these tumours can be explained by the continual exposure of the integument to a wide variety of chemical and physical abuse (Hargis *et al.*, 1992). In the present case, the tumour was diagnosed as fibroma based on the histological examination. However, Tostes *et al.* (2017) reported that most common skin tumours are mast cell tumour (17.87%) and squamous cell carcinoma (10.09%); and fibroma contributed only 0.86 % of all the skin tumour. The puppy was not able to walk properly because of the heavy weight of the tumour (32% of the body weight) hanging at left side. The tumour was resected under atropine-xylazine-ketamine combinations and this anaesthetic protocol was sufficient for surgical excision of the tumour. Surgical resection of skin tumours was easy due to the loose skin of the dog and is also recommended in the literature (O'Brien, 2003). From the

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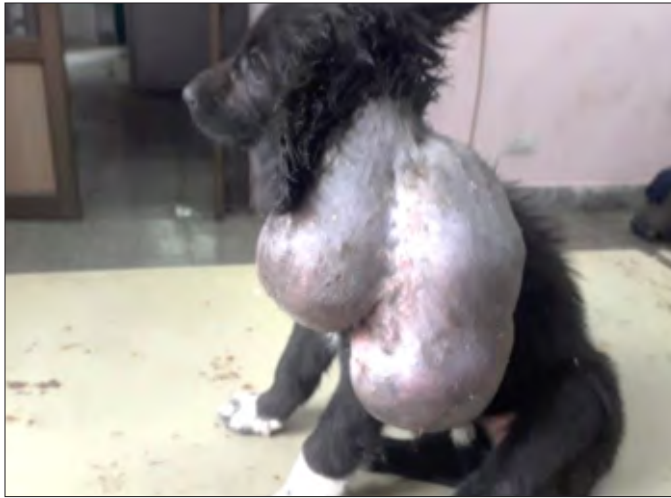


Fig. 1. Photograph showing massive growth at the left side of neck region

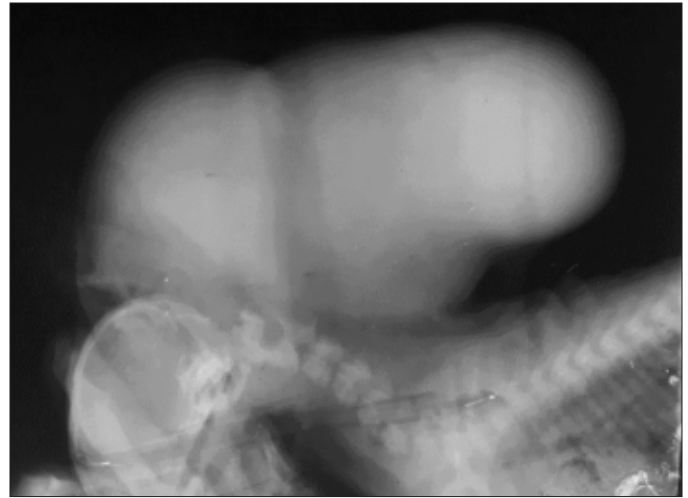


Fig. 2. Radiograph showing soft tissue opacity of the mass.

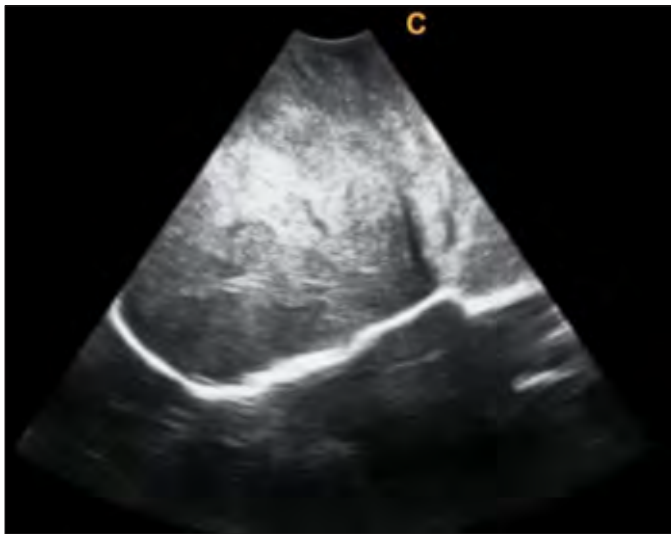


Fig. 3. Ultrasonogram showing soft tissue echogenicity and separation from the underlying tissue

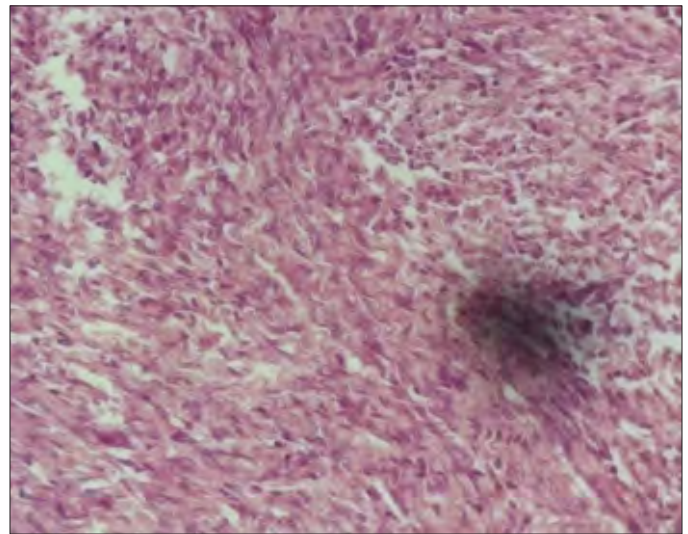


Fig. 4. Photograph showing plum cells with collagen characterising fibroma (H & E, 400X)

present case report, it can be concluded that congenital skin fibroma may grow rapidly and surgical resection is the best treatment under general anaesthesia.

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