

Surgical Management of Congenital Lipoma in a Calf

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Abstract

A 9 month old female non-descriptive buffalo calf with an extensive mass on lateral aspect of face was diagnosed to have a congenital lipoma and was managed by surgical excision. Physical examination, radiography and ultrasonography aided in differential diagnosis of the tumor mass. No postoperative complications were reported.

Keywords: Congenital lipoma, calf, surgical excision

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INTRODUCTION

Lipoma is benign tumor which originates from a fat tissue. The incidence of lipoma is frequent in dogs, less frequent in cows and rare in sheep, goat and pig [1]. This type of tumor does not metastasize and confine to their primary location. Superficial lipomas are more common in horses with age 1 to 2 years [2]. When compared to horses, the occurrence is less frequent in cattle and most of the times seen in young animals [3]. This tumor may not cause physiological imbalance, but may cause physical aberrations due to their extensive nature. In the present paper, surgical management of a congenital lipoma in non-descriptive buffalo calf is discussed.

CASE HISTORY AND OBSERVATIONS

A 9-month-old female non descriptive buffalo calf was presented to the clinics of department of Veterinary Surgery and Radiology, NTR College of Veterinary Science, Gannavaram, Sri Venkateswara Veterinary University, Tirupati, with a large mass on the lateral aspect of face from its birth (Figure 1). It was said that, the animal had been facing difficulty during feeding and grazing due to the presence of extensive mass. Physical examination disclosed the soft consistency of mass and the volume of the mass as 15×15×10 cm with a wide base. Lateral plain radiograph of the skull showed continuity of frontal crest and soft tissue density of the mass (Figure 2). Ultrasonography of the mass showed uniform echogenicity with no fluid filled sacs. Both physiological, hematological and biochemical

parameters were found within the normal range. Based on the findings of physical examination, radiography and ultrasonography, the condition was tentatively diagnosed as lipoma.

TREATMENT AND DISCUSSION

After complete clinical examination of the animal, it was decided to manage the tumor mass by surgical excision, on the same day of its presentation. The animal was prepared for aseptic surgery and local analgesia was achieved with 2% lignocaine hydrochloride. An elliptical skin incision was given over the tumor and the mass was exteriorized carefully by separating the capsule from the underlying tissue (Figure 3). The mass was found deep into the temporal fossa where it was in continuation with retrorbital fat through the space beneath the supraorbital process.

Complete removal of mass was done by ligating the base near the temporal fossa. The dead space was obliterated by application of multiple interrupted sutures to the fascia and the skin edges were sutured as per the standard procedure (Figure 4). Postoperatively, the animal was given intramuscular injections of streptopencillin at the dose rate of 100 mg/10 kg body weight for 5 days and meloxicam at the dose rate of 0.2 mg/kg body weight for 3 days along with daily dressing. By 12th postoperative day, the skin sutures were removed by which time, complete healing of wound was noticed. No postoperative complications were noticed during the observation period of 6 months.

Present condition as reported in a 9 month old buffalo calf and the mass was said to have been noticed in the animal from its neonatal stage. Neonatal lipomas in cattle are opined by Herzog and Geishauser as rare cases [4]. Very few authors like Aslani *et al.* and Sickinger *et al.* have reported over the incidence of congenital lipomas in large ruminants [5, 6]. Pully and Stannard; Bristol and Fubini opined that benign tumors of lipocytes occurs in adult to aged animals where as Gopal and Leipold opined that the lipomas are less frequent in cattle and occurs in young animals rather than aged animals [1–3]. Dunkerley *et al.* reported that lipomas usually occur at sub-cutis of neck, abdomen and upper parts of the limbs in animals but in the present case, the lipoma was noticed subcutaneously at the lateral aspect of

head [7]. Absence of skull defects in the lateral plain radiograph and absence of anechoic sacs in the ultrasonogram of the tumor mass aided in ruling out the probability of meningocele in the present case. Aslani *et al.* opined that the subcutaneous lipomas over head region of neonates should be differentiated from meningocele before starting the treatment protocol [5]. Careful excision of the tumor mass under local analgesia was followed in the present case. Similar treatment protocol was also adopted by Aslani *et al.* in treating the neonatal calf with subcutaneous lipoma over its head [5]. Finally, surgical management of congenital lipoma in a 9 moth old female non-descriptive calf ensured a good recovery with no postoperative complications.



Fig. 1: Photograph Showing an Extensive Tumor Mass on Lateral Aspect of Head in a Non Descriptive Buffalo Calf.

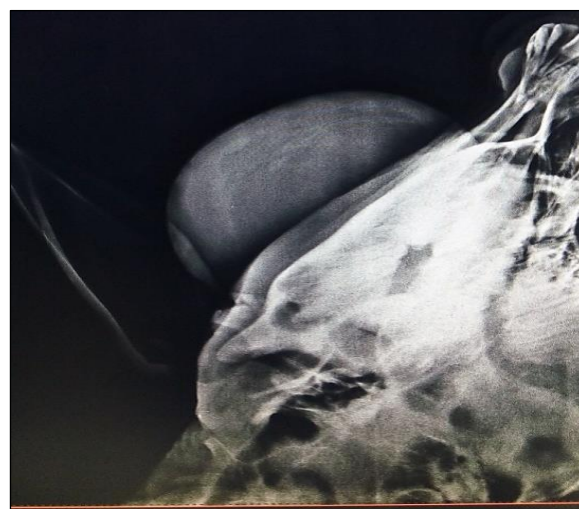


Fig. 2: Skiagram Showing Soft Tissue Opacity of Tumor Mass with no Defects in Frontal Bone.



Fig. 3: Intraoperative Photograph Showing Elliptical Skin Incision Over the Tumor Mass.



Fig. 4: Immediate Postoperative Photograph Showing Normal Physical Appearance of the Head.

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