CONGENITAL APOCRINE GLAND ADENOMA OF TAIL IN A BUFFALO CALF AND IT'S SURGICAL MANAGEMENT

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ABSTRACT

Congenital apocrine gland adenoma of tail on ventral aspect in between 2nd and 6th coccygeal vertebrae is reported in an infant buffalo calf. The histological findings are also discussed.

Keywords: *Bubalus bubalis*, buffalo, Adenoma, apocrine, calf, congenital

INTRODUCTION

Congenital neoplasmas are interesting because of their occurrence in early neonatal life. It arise during embryonic, fetal or early post-natal development from rudiments of a particular organ or tissue when it is still immature (Misdrop, 2002). These tumors are uncommon in animals, especially bovine (Sickinger *et al*., 2009). Among such tumors, apocrine sweat gland tumors are of concern as they occur frequent in dogs, occasional in cats, and rare in bovine (Jubb *et al*., 1993; Morandi *et al*., 2005). Therefore, the present case is put on record.

CLINICAL EXAMINATION

Two days old new born calf in Sanchor District of Rajasthan was reported to suffer with a swelling over the ventral aspect of tail. Clinical examination revealed the swelling to be enlarged, hard and painless on palpation (Figure 1). It was located between second and six coccygeal vertebrae and bending of tail was noticed. The mass was highly vascularized. The clinical findings were suggestive of a congenital tumor and it was planned to extirpate it surgically.

TREATMENT AND DISCUSSION

Surgical management

Pre-operatively, the calf was weaned for 12 h. It was restrained in left lateral recumbency and operative site was prepared aseptically. A tourniquet was applied at the base of tail to control the bleeding. The sedation was carried out by Injection Xylazine 0.5 mg/kg body weight intramuscularly and the low epidural anesthesia was also given using 1.5 ml of 2% lignocaine hydrochloride. Following the desired level of anesthesia, an elliptical incision was taken over the mass; and incised skin was retracted with the

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Figure 1. Enlarged, hard swelling on ventral aspect of tail.

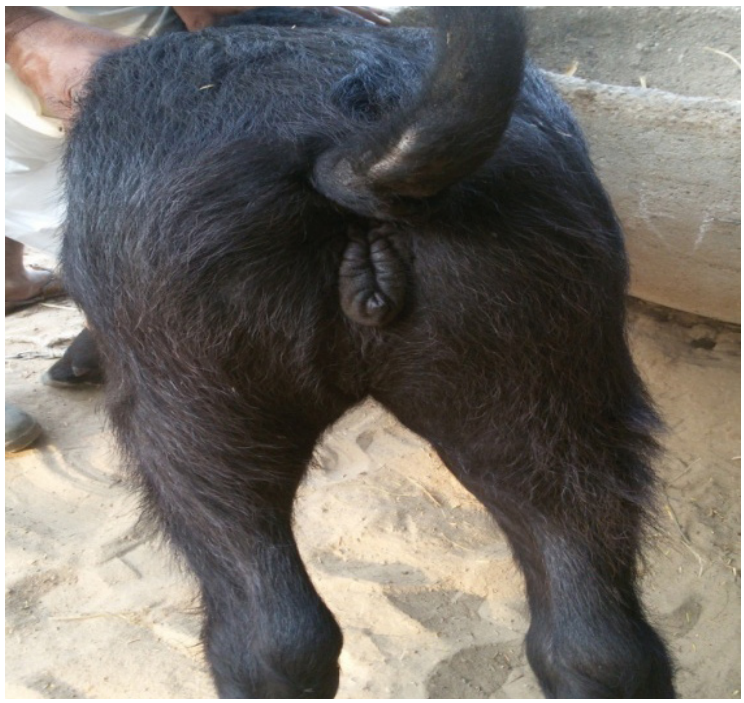

Figure 2. Infant calf after surgical extirpation and complete recovery.

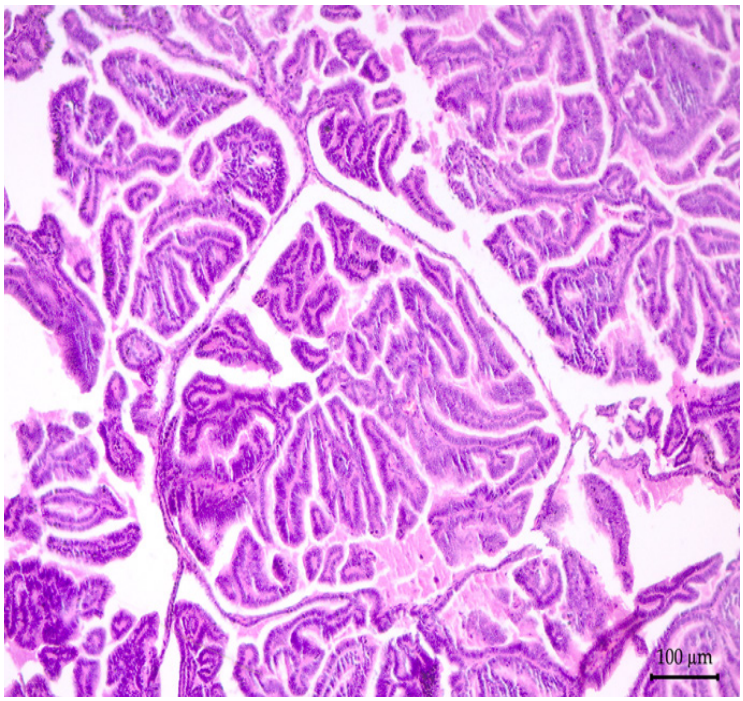

Figure 3. Neoplasm composed of multiple tubules with aborizing papillary projections supported by delicate fibro vascular stroma H&E 100X.

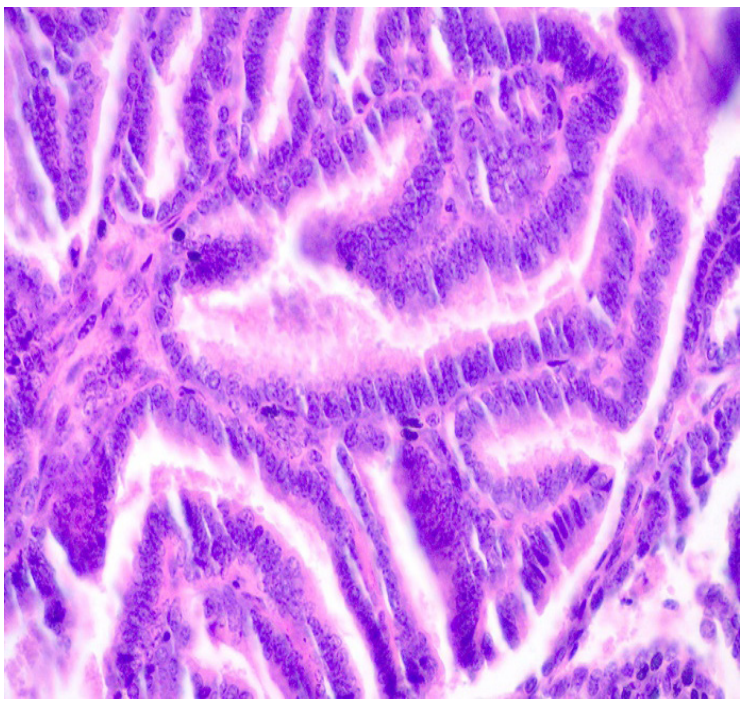

Figure 4. Neoplasm showing indistinct cell borders, moderate amounts of eosinophilic cytoplasm, round to oval nucleoli and apical snouts. H&E 400 X.

help of allies tissue forceps. It was followed by a blunt dissection and mass was removed without damaging the vertebral column and surrounding tissue. The bleeding was controlled by ligation of blood vessels and subcuticalar tissue was sutured using chromic catgut 0 by continuous sutures. The skin incision was closed using cotton thread by horizontal mattress sutures. The incised wound was sealed with tincture benzioin and bandaged properly. The calf was medicated with antibiotic (Inj. Oxytetracycline 5 mg/kg body weight) and analgesic (Inj. Meloxicam 0.5 mg/kg body weight) intramuscularly and it was continued for five consecutive post-operative days. The surgical wound was dressed regularly using 5% povidone iodine solution for 10 days. The skin sutures were removed on 12th post operative day (Figure 2).

HISTO-PATHOLOGICAL EXAMINATION

The tumorous mass was oval shaped, hard, encapsulated and weighed 460 grams. It was measured to be 11.2 cm in length and 6.5 cm in diameter. Excised tumor mass was transferred to glass container having 10% neutral buffered formalin. Small pieces from different sites of tumour were trimmed and processed by routine method of tissue processing to cut the section of 5 µ thickness. The sections were stained with Hematoxylin and Eosin (Suvarna *et al*., 2013).

Histopathological examination revealed the presence of single layer of high cuboidal to columnar epithelium arranged in tubules with multiple arborizing papillary projections into lumen and separated by dedicate fibro vascular stroma (Figure 3). Neoplastic cells had indistinct cell borders with moderate amount of eosinophilic cytoplasam. Occasionally apical snouts were evident (Figure 4). Nuclei were oval to elongated, with coarsely stippled chromatin and variable nucleoli. Mitotic figures were infrequent. Few reports on mixed apocrine gland adenocarcinoma of tail has been reported earlier in cattle by Piercy *et al*. (1994); Gulbahar *et al*. (2002); Tessele *et al.* (2015). The surgical extirpation of tumor did not result it's reoccurrence which might be due to its benign nature (Sastry and Rao, 2001).

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