

Surgical Management of Rectal Leiomyoma in a Buffalo

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Abstract

A graded Murrah she buffalo with a prolapsed mass at the anal region was diagnosed to have a rectal tumor. Physical examination of the condition aided in diagnosis. The condition was managed by surgical excision and the mass was confirmed as leiomyoma by histopathological studies. No postoperative complications were recorded. The clinical findings, surgical management and outcome of the cases were discussed.

Keywords: Leiomyoma, buffalo, rectum, surgical excision

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INTRODUCTION

Mechanical obstruction of small and large intestines is less common in large ruminants when compared to fore stomach and abomasal disorders [1]. Intraluminal intestinal tumor is one of the factors which are responsible for intestinal obstruction in ruminants. Leiomyoma is a benign mesenchymal tumor developed from smooth muscles. Reports are available mentioning the incidence of this tumor in female reproductive systems of cattle, whereas reports on its occurrence in small and large intestines of large ruminants are rare [2]. In the present paper, the diagnosis and surgical management of leiomyoma of rectum in graded Murrah she buffalo is discussed.

CASE HISTORY AND CLINICAL OBSERVATIONS

A nine year old graded Murrah she buffalo was presented to veterinary poly clinic, Tanuku, West Godavari, Andhra Pradesh with a complaint of prolapsed mass from the anal opening during defecation for the past 6 months (Figure 1). Signs of constipations and straining during defecation were said to have been noticed in the animal for the past few months. Physical examination disclosed the prolapsed mass as rectal tumor interfering with normal defecation of the animal. The mass was hard in consistency with its base

attached to the ventral wall of rectum. All the haematological and biochemical parameters were within normal range.



Fig. 1: Photograph Showing a Tumor Mass Protruding Out through Anal Opening in a Buffalo.

TREATMENT AND DISCUSSION

After thorough clinical examination, authors decided for surgical excision of tumor. The animal was prepared for aseptic surgery and was sedated with xylazine hydrochloride at the dose rate of 0.03 mg/kg body weight. Surgery was performed under caudal epidural analgesia in addition to local infiltration analgesia at the

base of tumor using 2% lignocaine hydrochloride. Superficial ligation of dilated blood vessels supplying the tumor was done and the mass was excised carefully. Capillary bleeding was arrested by electrocautery and the rectal wall edges were sutured by simple continuous sutures using Vicryl 2-0 (Polyglactin 910) (Figure 2).



Fig. 2: Photograph Showing a Closure of Rectal Defect after Tumor Excision.

Postoperatively, the animal was given streptopenicillin at dose rate of 500 mg/50 kg body weight intramuscular injection once daily for 7 days and meloxicam at the dose rate of 0.2 mg/kg body weight, through subcutaneous injection once daily for 3 days. Feed was withheld up to 48 h post-surgery and the animal was given crystalloid solutions till when it resumed regular feeding. This was to make the rectum empty in order to hasten the serosal healing of the area of proctorrhaphy. The animal was recovered successfully with no postoperative complications during the observation period of 6 months. The excised tumor mass was sent for histopathological studies which revealed plump muscle fibers running in different directions and confirmed the mass as leiomyoma (Figure 3).

The etiology responsible for the development of leiomyoma in the present case was unknown. Similarly, Sharma *et al.* and Sendag *et al.* reported unknown etiology for the development of leiomyoma in reproductive tract of cow [2, 3]. The mass appeared as a nodular hard protruding out as a prolapsed

mass during defecation in the present case which is in concomitance with the statement given by Kennedy and Miller that, leiomyoma projects out as a nodular mass [4].

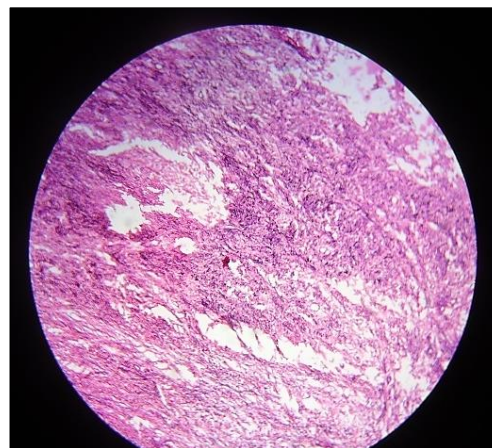


Fig. 3: Microphotograph Showing Plump Muscle Fibers Running in Different Directions H&E 1000X.

Surgical excision which was performed in the present case was opined as best choice of treatment by Evans for treating the smooth muscle tumors [5]. Withhold of feed postoperatively for 48 h, decreased the process of defecation in the animal which in turn decreased the contamination of the sutured area of rectum besides decreased contraction of the rectum. Presence of plump muscle fibers running in different direction in histopathological slides of the excised tumor mass in the present case confirmed the mass as a leiomyoma. Similar histopathological findings were also observed by Sharma *et al.* in leiomyoma of uterus in a cow [2]. Finally, surgical management and postoperative care given to the animal ensured a good recovery in the animal with no postoperative complications.

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