

Perineal Hernia in a Buffalo Heifer: A Case Report

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Abstract

A very rare case of perineal hernia has been recorded in a graded Murrah buffalo heifer calf. Chronic diarrhoea and tenesmus were thought to weaken the pelvic diaphragm and subsequent trauma lead to herniation of pelvic viscera like urinary bladder and a loop of large intestine. The herniation was bilateral appearing on either side of the anus. Herniorrhaphy was carried out under local analgesia and no recurrence was noticed thereafter.

Keywords: Perineal hernia, buffalo heifer, chronic diarrhoea

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INTRODUCTION

The pelvic diaphragm is a dam comprising muscles of anus and rectum, which keeps the internal organs like bowels, prostate and urinary bladder, etc. in place. Due to weakened pelvic diaphragm, there is abnormal displacement of these pelvic organs into the region around the anus. Perineal hernia is protrusion of the abdominal or pelvic viscera through the pelvic diaphragm which supports the rectal wall. It is most common in uncastrated old male dogs [1] while occurs very rarely in large ruminants like buffaloes and cows [2]. It is further documented that its incidence is most common in male than in female animals and it appears to be a disorder of geriatric dogs in the age range of 7–9 years [3]. In the present paper, a case of perineal hernia and its successful surgical management in a buffalo heifer is reported.

HISTORY AND CLINICAL OBSERVATIONS

A buffalo heifer aged about 8 months with a history of swelling at the perineal region (Figures 1 and 2) was brought to the State Institute of Animal Health, Tanuku, West Godavari Dt.

History revealed that it had an episode of chronic constipation, obstipation followed by tenesmus for a long period. Very soon the animal developed clinical signs like general lethargy, in appetite, dysuria, constipation,

gradual weight loss, generalized dehydration, rough hair coat which made the animal to stumble occasionally. In due course, the animal was reported to have suddenly developed a swelling which was increasing in size enormously. The condition was neglected for a few weeks until when the animal stopped urinating.



Fig. 1: Hernial Contents becoming Conspicuous While the Calf was Trying to Urinate.

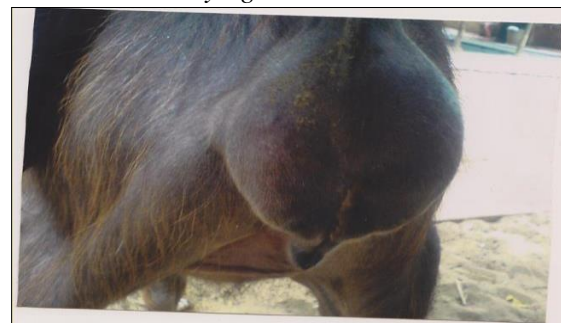


Fig. 2: Note Diffuse Swelling at the Perineal Region.

Clinical examination revealed that the animal was voiding urine with difficulty and consequent to urination, the swelling partially reduced in its size. On palpation, the swelling was soft to doughy. Following urination, a clear hernial ring in the perineal region was felt. There was straining at the time of defecation.

All the physiological parameters like temperature, pulse and respiration were within the normal range. Based on the above clinical signs, it was diagnosed as perineal hernia and herniorrhaphy was planned.

TREATMENT

The animal was kept under fasting for 36 hours and water was withheld for 12 hours before the day of operation. Enema was performed and the perineal region was shaved, thoroughly cleaned and prepared for aseptic surgery. The animal was controlled in sternal recumbency and the tail was fastened to the neck chain and the anus was plugged with a sterile tampon. Premedication was done with triflupromazine hydrochloride @ 0.1 mg/Kg body weight and local analgesia was achieved by administration of lignocaine hydrochloride in ring block. An oblique incision slightly curved starting from the lateral aspect of anus extending upward over the ischio-rectal fossa was made. The pelvic fascia and the muscles were bluntly separated to arrive at the hernia ring (Figure 3). The muscle fibres were retracted in order to reposition the hernial contents.

The hernial contents were urinary bladder and a loop of large intestine and these structures were found to be free from adhesions and the serosa was vital. There was no problem in repositioning the contents and suturing was practised using polypropylene no.2 without disturbing the normal perineal anatomy.

The suturing was started from the dorsal commissure of the hernial ring, by uniting the posterior border of the medial coccygeus muscle to the sphincter ani internus muscle, and then the sphincter muscles were sutured to the medial surface of the sacro sciatic ligament. The ring was made complete by suturing the internal sphincter muscle to the obturator internus muscle.

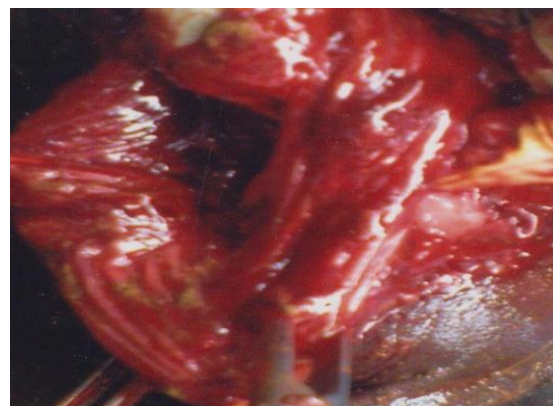


Fig. 3: Note the Hernial Ring after Repositioning of the Contents.

Following herniorrhaphy, the skin was sutured by horizontal mattress sutures with braided black silk no. 1. Daily dressing was carried out with routine antiseptics along with a course of broad spectrum antibiotics. The farmer was instructed to offer only the roughages containing high fibre to relieve constipation. Liquid diet was advocated up to 3 days along with supportive fluid therapy. The animal made an uneventful recovery after one week.

DISCUSSION

It is an established fact that, perineal hernia is very common in uncastrated old male dogs and it was also reported in cats with a lesser frequency. But its occurrence in large animals is very rare and only a few reports are available on perineal hernia in buffaloes. Prostate hyperplasia in males was attributed to cause straining and subsequent weakening of the perineal diaphragm leading to herniation. Dogs with benign prostate hyperplasia have increased levels of relaxin and subsequent weakening of pelvic diaphragm [4].

The lesser incidence in females has been related to the greater strength, size and area of rectal attachment of the levator muscle. These differences were associated with the load placed on the pelvic diaphragm muscles during parturition [5]. Contrary to this assertion, perineal hernia was recorded in a female young buffalo calf.

This could be attributed to the weakened perineum due to protracted tenesmus and straining. There would have been an episode of trauma to the perineal region, which might have gone un-noticed.

Herniation may occur lateral to the anus either unilaterally or bilaterally. In dogs unilateral herniation is more marked when compared to bilateral. However, in case of unilateral herniation, the contralateral side of the perineum was found to be weak [6]. In dogs, unilateral herniation on right side is more common [7]. In the present case, herniation was bilateral. The symptoms like constipation, straining while urination etc. common in dogs, were also observed in the present case. Diagnosis was done by symptoms like, regressed swelling following urination, a clearly palpable hernial ring etc. Perineal hernia with urinary bladder as hernial content was treated surgically by herniorrhaphy in a cross bred cow [8], and also in a she buffalo [9, 10]. In the present case, along with urinary bladder, a loop of intestine was also observed, which might have been responsible for the constipation.

In bilateral herniation, staged procedures with an interval of three to four weeks have been advocated in dogs [1]. But in the present case, surgery was carried out in a single phase, without any problem. Absence of adhesions might have made the repositioning easy with no post-operative complications. Simple hernioplasty has been sufficient in most of the cases, while a nylon mesh was employed for perineal hernioplasty in buffaloes [11]. The suturing technique followed in dogs has been adopted in this case which yielded encouraging results. The usual postoperative complications in dogs like wound infection, fecal incontinence, tenesmus, rectal prolapse, urinary tract malfunction, sciatic nerve paralysis, recurrence of herniation etc. were not observed in the present case. This could have been due to less incidence and strong muscular diaphragm in buffaloes.

CONCLUSION

A case of perineal hernia in a buffalo heifer is reported in this paper, because of its rare occurrence. The cause of the herniation was weakened perineal diaphragm following an episode of tenesmus coupled with possible trauma as an exciting factor. Herniation is bilateral with urinary bladder and a loop of intestine as hernial contents. Herniorrhaphy was practised under local analgesia by

suturing medial coccygeus, sphincter muscles, sacrosciatic ligament and obturator internus, in the same order. There were neither complications nor recurrence.

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