

SURGICAL MANAGEMENT OF PERINEAL HERNIA IN MEHSANA BUFFALO

R.K. GOSAI*, A.M. PATEL, J.B. PATEL and SURESH CHAUDHARY

Dr. V.M. Zala Clinical Complex, Deesa

College of Veterinary Science and Animal Husbandry, Kamdhenu University, Sardar Krushinagar-385506, Gujarat

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SUMMARY

A 12 year old Mehsana buffalo was brought at Dr. V. M. Zala Clinical Complex, Deesa. The buffalo was found with history of right unilateral swelling on vulvar lip and difficulty in micturition since last two months. Neutrophilia was noted in complete blood count. Ultrasonography shown a hyper echoic hernia sac encircling the urinary bladder. The case was diagnosed as perineal hernia and herniorraphy was carried out under epidural anesthesia. The buffalo showed subcutaneous seroma as minor complications. The buffalo recovered uneventfully.

Keywords: Buffalo, Herniorraphy, Perineal hernia, Urinary bladder

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Perineal hernia is the protuberance of organs of the abdominal cavity through the pelvic diaphragm, which supports the rectal wall. This condition primarily arises due to a weakened pelvic diaphragm, resulting in the abnormal displacement of pelvic organs into areas surrounding the perineal region (Prasad *et al.*, 2015). Predisposing factor to perineal hernia was external injuries, rupture to the pelvic diaphragm and increased abdominal pressure during staining, which can lead to the herniation of the urinary bladder and abdominal organs (Shridhar, 2011). It was more commonly seen in male dogs which not castrated (Kumar *et al.*, 2016) and is a rare condition in large ruminants. This present paper a successful surgical operative for unilateral perineal hernia in a Mehsana buffalo.

A 12 year old Mehsana buffalo, with a weight of 575 kg, suffered from right unilateral perineal swelling and difficulty in urinating for the past two months (Fig. 1). Blood parameters were found within normal range with slightly elevated neutrophils, suggestive of inflammatory changes. The swelling gradually increased when the bladder was full, leading to challenges during micturition. On palpation, a soft, reducible, and painless unilateral swelling was observed on right side of vulvar lip. Manipulation leads to voiding of urine suggestive of herniated bladder. A distinct hernial ring was palpated in the perineal area, measuring approximately 5 cm in diameter. All the physiological parameters were found to be normal. Ultrasonography confirmed presence of anechoic fluid in urinary bladder with hyperechoic bladder wall (Fig. 2). No any other structures like intestine, uterus and mesentery was observed in scan. It was confirmed as

right unilateral perineal hernia and planned for surgical correction.

The buffalo was kept off feed for 24 hours prior to the surgery. After shaving and scrubbing the surgical site was prepared aseptically. The surgery was performed with the animal in a standing position under caudal epidural anesthesia, administered with 5 ml of 2% Lignocaine hydrochloride. A tampon of cotton was put in the anus to prevent the contamination. A dorso-ventral linear skin incision was made directly over the hernial swelling in perineal region, near from base of the tail to end of swelling. After separation of skin and fascia, adhesion was removed manually then hernia content (bladder) was identified. The content were urinary bladder and retroperitoneal fat. The hernial ring was closed with using of No. 2 silk by overlapping suture after reposition of urinary bladder (Fig. 3). Herniorraphy was performed by suturing the external anal sphincter and the levatorani, coccygeus muscles. The subcutaneous suture was taken by chromic catgut No. 2. The skin incision was united by horizontal mattress suture pattern using silk no. 2. Subcutaneous seroma around the surgical site was noted (Fig. 4). The seroma was drained and recovered uneventfully after one month (Fig. 5).

Post-operatively, the animals were treated with Strepto-penicillin @10,000 IU I/M, Meloxicam @0.2 mg/kg B.W. and Chlorpheniramine maleate @ 30-50 mg I/M for five days. Sutures were removed 12 days after surgery.

In present case, unknown etiology for development of unilateral hernia but it might be due to external trauma in perineal region. The bladder hernia in perineal region was also reported by Mathur (2003) in buffalo and Shridhar

*Corresponding author: rohit89dr@kamdhenuuni.edu.in



Fig. 1. Unilateral perineal hernia
 Fig. 2. Hyperechoic hernia sac containing the urinary bladder
 Fig. 3. Sutured hernial ring by Silk no. 2
 Fig. 4. Subcutaneous seroma formation post-operatively complication.
 Fig. 5. Post operatively recovery

(2011) in a cow. Perineal hernia in non-pregnant buffaloes was also documented by (Prasad *et al.*, 2015; Vadalia *et al.*, 2017). Similarly, Kumar *et al.* (2021) observed hyperechoic hernia sac enclosing the retroflexed urinary bladder and motile loop of large intestine with homogenous hypoechoic contents. Unilateral perineal hernias in female Mehsana buffalo can be successfully repaired with herniorraphy.

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