

Successful Retention of Postpartum Genital Prolapse with Buhner's Suture in Three Jaffarabadi Buffaloes – A Case Study

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The eversion of genital organs or their prolapse is a condition mostly seen during or within a few hours after postpartum in cows and buffaloes. Genital prolapse is the dislodgment of intra-pelvic structures like the vagina, uterus, and bladder from the normal anatomical position through the vaginal opening. It is regarded as an emergency condition and should be managed before excessive edema, mucosal trauma, contamination, and fatal haemorrhage lead to a grave prognosis (Miesner and Anderson, 2008). This communication reports successful management of uterine prolapse in three Jaffarabadi buffaloes using Buhner's suture as a retention technique.

CASE HISTORY AND OBSERVATIONS

Three pluriparous Jaffarabadi buffaloes were presented with prolapsed cervico-vagina or uterus and attached placenta to the Veterinary Clinical Complex, Junagadh with a history of normal parturition following slight traction by a local veterinarian and delivery of normal calf before 8, 24, and 48 h in Case 1, 2, and 3, respectively. All the buffaloes were debilitated, recumbent in position, and had severe staining at the time of presentation at the clinic. On gynaeco-clinical examinations, the prolapsed mass was hanging from the vulva with the swollen, reddened, dry uterus stained with dung. The cotyledons were attached to the maternal caruncles with haemorrhage in all three cases (Fig. 1a, 2a, 3a). The rectal temperature was recorded to be 101°F, 99°F, and 100°F in case 1, 2, and 3, respectively. The haematological examination showed neutrophilia in all the cases with little fluctuation of other related blood parameters.

TREATMENT AND DISCUSSION

In all three cases, the uterine prolapse was managed under caudal epidural anesthesia (Lignocaine hydrochloride 2 %) with reduction and repositioning of prolapsed mass using a standard protocol. The retention of prolapse was achieved by Buhner's sutures applied over vulvar lips (Fig. 1b, 2b, 3b) as recommended by Noakes *et al.* (2001) and Raju *et al.* (2018). The sutures were removed after cessation of straining

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around 96 h in case 1 and 2, and after 120 h in case 3 without any infection at the suture side. The buffaloes were treated with, Inj. Calcium borogluconate 450 mL, i/v once, and 0.5% dextrose 1000 mL i/v, Oxytetracycline hydrochloride 10 mg/kg b.wt., i/v, Inj. Chlorpheniramine maleate 0.4 mg/kg b.wt., i/m and Inj. Melonex 0.5 mg/kg b.wt., i/m OID for 3 days with advice for oral administration of Proactive bolus (4 bolus) OID for five days. The straining ceased completely within 3 days with excellent recovery in all three buffaloes after repositioning and retention of prolapsed uterus.

Genital prolapse involving the uterus occurs in about 0.5 % of cases at the time of parturition (Arthur, 2001). It is more likely to occur in pluriparous animals compared with heifers (Bhol and Parekar, 2009). It is observed more within 2-24 h of calving (Patil, 2014) as was observed in present cases. In the present case, all the affected buffaloes had prolapsed uterus swollen, reddened, dry, and stained with dung, and cotyledons were still attached to the maternal caruncles with haemorrhage. Similar condition was also reported by Vijyeta *et al.* (2017).

The prolapsed mass was cleaned gently before repositioning with an antiseptic solution; *i.e.*, potassium permanganate (1:1000) for removal of debris and dung and edema was reduced by applying ice packs and alum on the

prolapsed mass (Miesner and Anderson, 2008). In all the cases, repositioning of prolapse mass was carried out under caudal epidural anesthesia to reduce the straining (Kumbhar *et al.*, 2009), which facilitated the repositioning of prolapsed organs.

Different types of vulvar sutures or truss can be used to prevent the retention of prolapse in buffalo. In the present cases, the retention of prolapse mass was carried out by using Buhner's suture which was found to be the most effective

technique for the successful retention of prolapse mass by Tanjila Hasan *et al.* (2014) and Vijyeta *et al.* (2017). This suture can be kept for a month with careful removal of manure, dirt materials, and the use of mild potassium permanganate solution to prevent infection, which was also noticed by Prakash *et al.* (2016).

The blood parameters showed neutrophilia in all the cases with little fluctuation of other related blood



Fig. 1: Jaffarabadi buffalo with uterine prolapse (a) before and (b) after Buhner's sutures



Fig. 2: Jaffarabadi buffalo with uterine prolapse (a) before and (b) after Buhner's sutures

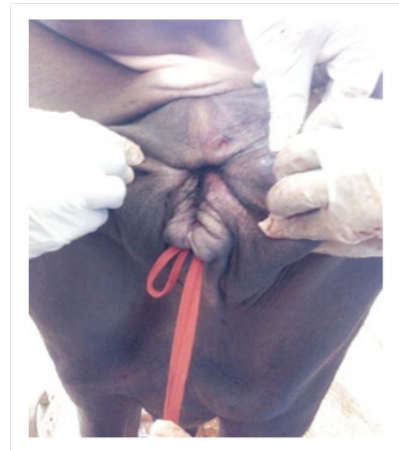


Fig. 3: Jaffarabadi buffalo with postpartum cervico-vaginal prolapse (a) before and (b) after Buhner's sutures

parameters (Table 1). Moreover, in the present cases, all buffaloes were debilitated, recumbent in position, and had severe staining at the time of presentation and handling of the case lead to ascending infection and thereby neutrophilia (Tanjila Hasan *et al.*, 2014). Some unusual sequels like fecal contamination, vascular disturbance, and trauma may likely occur if proper hygienic care is not taken by the animal owner. These contaminations may turn into septicemia. In the present case, antibiotics, anti-inflammatories, and other supportive medicines were given to avoid infection or septicemia. So, the recovery was uneventfully in all three cases.

Table 1: Haematological parameters of prolapsed Jaffarabadi buffaloes (n=3)

Parameters	Case 1	Case 2	Case 3
Hb (g/dL)	11	12	10
PCV (%)	32.98	33.50	32.85
RBC (X 10 ⁶ /μL)	5.9	5.6	6.1
Platalates (x 10 ⁶ /μL)	2.66	2.95	3.10
WBC count (per μL)	9020	8090	9070
Neutrophils (%)	55	52	59
Lymphocytes (%)	41	45	51
Monocytes	3	2	3
Eosiniphils (%)	1	0	1
Basophils (%)	0	0	0

Based on the present outcomes, the Buhner's sutures are advocated in the management of postpartum cervico-vaginal/uterine prolapse in Jaffarabadi buffaloes with antibiotics, anti-inflammatory and other supportive medicines for prevention of recurrence and speedy recovery.

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