



# Management of Recurrent Cervicovaginal Prolapse in a Pregnant Crossbred Jersey Cow

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## ABSTRACT

A case of chronic recurrent cervicovaginal prolapse and a tear at ventral commissure of vagina and its management by Buhner's suture placed till term using infusion drip set tubing is reported. The recovery was uneventful with delivery of a live calf at term.

**Key words:** Cervicovaginal prolapse, Pregnant, Crossbred cow, Jersey.

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## INTRODUCTION

Outward eversion of vagina with or without prolapse of the cervix occurs in large and small ruminants and is usually observed in mature animals in the last trimester of pregnancy (Roberts, 2022). Such prolapses often present in late gestation and are rarely observed in post parturient condition (Noakes *et al.*, 2009; Raidurg, 2014). Although the precise cause of cervicovaginal prolapse has not been well established, multiple factors like increased intra-abdominal pressure associated with the gravid uterus, intra-abdominal fat, rumen distention plus relaxation and softening of the pelvic girdle and associated soft-tissue, increased circulating concentrations of oestrogens and relaxin during late pregnancy, hypocalcaemia, uterine atony, dystocia, etc.

have been identified as predisposing causes (Andrews *et al.*, 2008; Roberts, 2022). Discomfort caused by vaginal eversion, along with swelling and irritation of the exposed mucosa, leads to straining and, thus, more extensive prolapse. Eventually, the entire vagina may be prolapsed, with the cervix visible at the most caudal part of the prolapsed tissue. The bladder or the loops of intestine may be contained within the prolapsed vagina. Vaginal prolapse, although most common in mature animals in late pregnancy, may occur in young, non-pregnant animals with a lot of fat. It is more commonly seen in stabled animals as compared to pastured ones, suggesting the lack of exercise as a contributing factor. Besides, superovulatory treatments in cows may also lead to such conditions owing to higher circulatory oestrogens (Roberts, 2022). However, a

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breed predisposition for cervicovaginal prolapse indicates some genetic component in the pathogenesis of this disease. Genital prolapses are routinely corrected by reduction, reposition and retention techniques, particularly in long-standing conditions (Bhat *et al.*, 2022).

## CASE HISTORY AND OBSERVATIONS

A six and a half-year-old Crossbred Jersey cow with five months of pregnancy was presented with cervicovaginal prolapse. The animal was previously handled at field level for the condition using multiple shoelace sutures. When presented to the Veterinary Clinical Complex (referral hospital) of Faculty of Veterinary Sciences and Animal Husbandry, SKUAST-Kashmir, the animal was continuously straining, that had resulted in an injury near the ventral commissure of the vulva. Some part of the vulva at the ventral commissure was also lost. The prolapsed organ was soiled and considerably swollen with a thick string of exudates hanging below hocks. (Fig.1a). The cervix was visible at the tip of the prolapsed structure with an intact cervical seal. The animal had a history of being treated with antibiotics and antipyretics. There was no fever or anorexia when the case was presented. However, moderate dehydration was observed and the abnormal posture and restlessness suggested that the condition was painful.

## TREATMENT AND DISCUSSION

The animal was casted and restrained in right lateral recumbency. Caudal epidural anaesthesia with 2% lignocaine HCl was given. The perineum was cleaned with a 1% potassium iodide solution. The prolapsed organ

was cleaned with cold water to which sugar was added to achieve some shrinking of the everted vaginal tissue. All the dirt was removed, the remnants of stitches removed and the exteriorized tissue was examined for any injuries. There were multiple abrasions without any major injury. A mixture of lignocaine jelly and ointment of Soframycin was applied all over the prolapsed tissue to manage the abrasions and soothe the irritation. The prolapsed organ was then reposed and retained by means of a Buhner's suture (Fig. 1b). The Buhner's suture was placed as per the standard procedure described by Bhattacharyya and Fazili (2011). A sterile, non-irritant infusion drip line was used as thread since it was anticipated that the suture may have to be kept in place till delivery of the animal. The animal was given slow intravenous (IV) injections of Flunixin Meglumine (Megludyne) @ 2.2 mg/kg for 3 days, Injectable preparation of Ceftriaxone (Monocef) @ 10 mg/kg IV, along with two pints of 5% Dextrose Normal Saline IV. Mixture of Lignocaine jelly and ointment Soframycin was given for local application. The owner was advised to house the animal with its hind quarters elevated as compared to the fore quarters. Also, antisepsis of perineum and the suture and removal of suture towards approaching parturition signs were explained. The animal was followed for next four months and the Buhner suture was keenly observed for any infection. The animal recovered uneventfully and delivered a healthy male calf at term without any complications.

Chronic cases of genital prolapse are a great nuisance to animal reproductive health and cause economic loss to farmers by hampering the milk production. The condition frequently occurs in pluriparous animals during late gestation (Kumar *et al.*, 2012). The present case was peculiar in its presentation as the animal was in mid pregnancy wherein



**Fig. 1a:** Cervico-vaginal prolapse. **Fig. 1b:** After treatment.

the hormonal profile as well as intra-abdominal pressure of the animal are not expected to predispose the animal to cervicovaginal prolapse. However, intra-abdominal pressure changes due to sudden alterations in feeding habits or vaginitis due to progesterone dominance can't be ruled out. Both these conditions can lead to cervicovaginal prolapse (Nayak and Samantar, 2010; Talukdar *et al.*, 2019). Further, the sterile drip line that was used as suture material in this case, was tolerated well and lasted for over four months without any complications. This may be due to non-irritant nature of the drip line (Bhattacharya and Fazili, 2011). No difficulty was faced during correction and no recurrence occurred since due care was taken to address the source of irritation. The cow delivered a healthy male calf.

## CONCLUSION

It was observed that the chronic recurrent non-responsive cervicovaginal prolapse may be managed fairly well using sterile. The material is tolerated well over long term without complications if proper antisepsis is observed.

## CONFLICT OF INTEREST

None

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