Short Communication

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Successful Management of Cervico-Vaginal Prolapse in Gaddi Ewe

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ABSTRACT

A five-year-old pregnant Gaddi ewe weighing 42 kg, in her second pregnancy, was presented with signs of restlessness, straining, and a complete Cervico-vaginal prolapse that had persisted for two days. Upon physical examination, a smooth, crimson, spherical mass was observed protruding from the vaginal canal, with no history of prolapse during her previous lambing. Abdominal ultrasonography confirmed the presence of two viable fetuses, necessitating immediate intervention. The treatment plan included administering caudal epidural analgesia with 2% lignocaine at a dosage of 4 mg/kg body weight, followed by cleaning and decontaminating the prolapsed mass with a mild potassium permanganate solution. The prolapsed mass was then carefully repositioned to alleviate bladder pressure and prevent further trauma. Finally, Buhner's suture was applied to maintain the prolapse in place until term, with the sutures being loosened just before lambing.

Keywords: Buhner suture, Cervico-Vaginal prolapse, Sheep

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INTRODUCTION

Cervico-vaginal prolapse is a reproductive disorder that occurs late in gestation among farm animals, demanding immediate attention due to its significant economic impact on livestock owners by compromising both reproductive and productive capacities (El-Wishy, 2007). This condition involves the protrusion of the vaginal wall, and occasionally the cervix, through the vulva, leading to the exposure of the vaginal mucosa. Sheep are particularly vulnerable, with prevalence rates ranging from 0.5-1% to as high as 20-40% in certain flocks (Yotov *et al.,* 2013). The pathophysiology is multifactorial, involving hereditary predisposition, abnormal perineal connective tissue, hormonal influences, and increased abdominal pressure during pregnancy (Couri *et al.,* 2012). Hormonal changes, particularly elevated estrogen levels and the relaxation of pelvic ligaments due to pregnancy hormones are key predisposing factors (Sobiraj, 1990; Wolfe, 2009). Additionally, conditions that increase intra-abdominal pressure, such as multiple pregnancies, large fetuses, and ruminal distension, further contribute to the likelihood of prolapse (Drost,

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2007). Other predisposing factors include hypocalcemia, grazing on clover-rich pastures, and feed containing phytoestrogenic compounds (Miesner and Anderson, 2008). The consequences of Cervico-vaginal prolapse can be severe, leading to abortion, infertility, dystocia, and even death in pregnant ewes (Noakes *et al.,* 2009). In extreme cases, it can result in vaginal rupture and the herniation of organs like the intestines, bladder, or uterus, which can be fatal (Veeraiah and Srinivas, 2010).Effective management involves addressing the underlying causes, repositioning the vaginal prolapse, and taking measures to prevent recurrence (Bhattacharyya *et al.,* 2012; Verma *et al.* 2022). Prompt intervention is essential to minimize adverse effects and ensure the economic sustainability of sheep farming. This report details the successful management of Cervico-vaginal prolapse in a last-trimester pregnant Gaddi ewe.

CASE HISTORY AND OBSERVATIONS

A 5-year-old Gaddi ewe in advanced gestation was presented to Dr. G.C. Negi College of Veterinary and Animal Science in Palampur, India, exhibiting signs of restlessness, straining, and a prolapsed mass protruding from the vulva for the past two days. The ewe had no history of prolapse in her two previous pregnancies. Physical examination revealed a swollen and edematous mass involving both the cervix and vagina, which was diagnosed as Cervico-vaginal prolapse (CVP). The prolapsed mass had minor lacerations and was cleaned with a mild potassium permanganate solution.

The ewe's vital signs, including a rectal temperature of 102.3°F, a heart rate of 86 beats per minute, and a respiration rate of 38 breaths per minute, were within the normal physiological range. Further assessment with trans-abdominal ultrasonography (TAUS) confirmed feta viability and radiography confirmed a twin pregnancy.

Caudal epidural anaesthesia using 2% lidocaine hydrochloride at a dose of 4 mg/kg body weight was administered to reduce straining and desensitize the perineal region for easier manipulation. The prolapsed tissue was cleansed with cold water and irrigated with potassium permanganate solution to reduce edema and disinfect the area. After carefully examining the tissue for lesions, the prolapse was repositioned to alleviate bladder pressure and restore normal urine flow. Buhner's suture was applied to secure the tissue and prevent recurrence. The prolapsed mass was gently maneuvered back into the vaginal canal using the fist and palm.

To prevent infection, the ewe received an intramuscular injection of Strepto-penicillin at a dosage of 1 ml/50 kg body weight (Zenex) for 5 days, along with Flunixin meglumine (1.1-2.2 mg/kg body weight; Virbac) as an anti-inflammatory treatment. The owner was advised to monitor the vulvar area regularly and prepare for lambing, with instructions to remove the sutures before delivery. The ewe successfully delivered two healthy lambs 11 days post-treatment.

A. Prolapsed part being cleaned with cold water before replacement.

B. Application of Buhner suture to prevent the reoccurrence of the prolapse mass.

C. Ewe after lambing with 2 healthy lambs.

TREATMENT AND DISCUSSION

This article discusses a case of pre-partum Cervico-vaginal prolapse in a pregnant sheep, which was successfully managed through epidural anaesthesia and the careful repositioning of the prolapsed mass using Buhner's suture. Factors such as carrying multiple fetuses and limited activity due to stall feeding likely contributed to the ewe's susceptibility to this condition, which typically occurs in the final weeks of pregnancy (Noakes *et al.,* 2009). Epidural anaesthesia was instrumental in reducing straining and facilitating the manipulation of the prolapsed tissue (Patra *et al.,* 2015). Cleaning the prolapsed tissue with potassium permanganate helped reduce edema and minimized the risk of infection and subsequent complications (Yotov *et al.,* 2013; Hasan *et al.,* 2017). The successful resolution of this case highlights the importance of prompt intervention, skilled management, and vigilant postoperative care.

CONCLUSION

Cervico-vaginal prolapse is a significant reproductive disorder that occurs in ewes during late pregnancy and can also manifest postpartum. It is considered an emergency requiring immediate veterinary attention. The success of the case largely depends on early intervention and management with required treatment. Livestock farmers should contact their veterinarians immediately upon noticing such a condition to prevent complications that could result in financial losses.

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