

Contemporary approach for uterine prolapse amputation in a goat

Chetna Gangwar¹, Omprakash Jajriya^{2†}, Kalyani Nandanwar², Renuka Mishra³, Jitendra Agrawal⁴, Diksha Singh² and Akash Singh²

Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura-281 001 (Uttar Pradesh)

¹Associate Professor, Veterinary Clinical Complex; ²MVSc Scholar, ³PhD Scholar, ⁴Assistant Professor, Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal Sciences, Mathura

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Postpartum uterine prolapse is a serious condition where the uterus is inverted and protrudes from the vulva, sometimes extending as far as the hock joint (Hanie, 2006). This can occur in does shortly after delivering new born kids.

A 3-year-old goat weighing 24 kg was brought in with a history of repeated uterine prolapse (Fig. 1). It had given birth to two healthy kids five days ago, during its third pregnancy. The uterine prolapse was made worse by several dog bite wounds that happened a day before the goat was brought in. On physical examination, the animal was found dull and depressed. The rectal temperature was 103.1°F with slightly pale conjunctival mucus membrane, and elevated heart rate (110 beats/min) and respiratory rate (45 breaths/min). A heavy mass of uterus with multiple caruncles was seen protruding out from the vulva. The prolapsed mass had several dog bite wounds and was swollen, filled with fluid, torn, dead in some areas,



Fig.1: Postpartum uterine prolapse with necrosis in non-descript goat.

and dirty with faeces and soil. Bleeding was also observed from the lacerated mass.

The goat was administered with 2.5 mL of 2% lignocaine HCl into the lumbosacral space to attain epidural anaesthesia. The hair around the perineal region were clipped and shaved for aseptic procedure. The tail was fully covered by bandage to avoid contamination. Before washing, the bladder was evacuated by uplifting the prolapsed mass. The prolapsed uterus was gently washed with potassium permanganate (1:1000) solution using gloved hands followed by moping with clean and dry gauze. The animal was restrained in right lateral recumbency, and dexamethasone was administered (0.5 mg/kg body wt.) intramuscularly and Ringer's lactate solution (500 mL) intravenously throughout the procedure. Autoclaved surgical drapes were applied around the perineal region to avoid further contamination. With the help of the tear on uterine prolapse, major blood vessels were palpated, and haemostasis was achieved by ligation and application of artery forceps. Above 6-7 cm from necrosed part of prolapsed mass, 3-4 separate ligations were made around the neck of the prolapsed portion of uterus. The necrosed portion of prolapsed mass was then amputated with the help of a B.P. blade leaving a stump. After 5 min, artery forceps were removed, and the stump was replaced back into the vagina and trans-vulval horizontal mattress retention sutures were applied using shoe-lace.

First dose of post bite anti-rabies vaccine was given followed by prescription for subsequent doses at day 3rd, 7th, 14th and 28th. Postoperative medication included antibiotic Ceftriaxone (10 mg/kg body wt., i.m. for 5 days) and anti-inflammatory drug meloxicam (0.5 mg/kg body wt., i.m. for 3 days), muscle relaxant dicyclomine HCl (0.5 mg/kg body wt., i.m.), tribivert (2 mL i.m.), iron injection (1 mL, i.m. at weekly interval) for 3 weeks. Immunostimulant, Restobal (15 mL PO, bid) and haematinic syrup, aRBCe RAKKT (10 mL PO, bid) was advised for 14 days. A topical application of fly repellent spray was also included in the conservative therapy. The goat recovered by 14 days of treatment without any complications.

[†]Corresponding author; E-mail: omprakashjajriya1234@gmail.com

Uterine prolapse typically happens during the third stage of labour, coinciding with the expulsion of the foetus and the detachment of the foetal membranes from maternal caruncles (Abbas and Abed, 2021). This heightened risk is attributed to the limited mobility of indoor-raised animals, particularly during pregnancy, resulting in overall muscle weakness. Consequently, weakened uterine muscles may lead to challenging labour, prompting repeated pushing efforts by the animal and ultimately culminating in uterine prolapse (Majeed and Taha, 1991). In complex instances such as lacerated, injured, or necrotic uterine prolapsed masses, amputation becomes imperative. To preserve the life of the goat, amputation of the necrotic uterine prolapsed mass is necessary, albeit resulting in the loss of fertility. Successful management of uterine prolapse in goats was achieved through the implementation of three interventions: reduction, repositioning, and retention (3R principle) of the prolapsed mass, along with appropriate therapeutics (Azad *et al.*, 2024).

However, in the present case, the severity of necrosis rendered the use of the 3R principle impractical, so the amputation of the prolapsed uterus became imperative to preserve the life of the goat. Prompt decision to resect the necrosed uterine mass and rapid treatment were the key factors for complete recovery with good prognosis.

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