

CASE REPORT: TREATMENT OF POSTPARTUM UTERINE PROLAPSE IN ETAWAH CROSSBREED GOAT IN KESILIR VILLAGE, SILIRAGUNG DISTRICT, BANYUWANGI**Laporan Kasus: Penanganan Prolapsus Uteri Pasca Melahirkan pada Kambing Peranakan Etawa (PE) di Desa Kesilir, Kecamatan Siliragung, Banyuwangi****I Made Gede Raditya Darmayoga^{1*}, Ni Putu Premasuari Putri Maha Devi¹, Misfah Maulidiyah¹, Jovan Takasi Amadeo Hutapea¹, Clarissa Devina Coaniago¹, Eukaristia Junitha¹, Desak Nyoman Dewi Indira Laksmi², Wayan Bebas², I Gusti Ngurah Bagus Trilaksana², I Wayan Sukernayasa², Taufik Mukti³**¹Student of Veterinary Medicine Professional Education Program, Faculty of Veterinary Medicine, Udayana University, Jl. PB. Sudirman, Denpasar, Bali 80234, Indonesia²Laboratory of Veterinary Reproduction, Faculty of Veterinary Medicine, Udayana University, Jl. PB. Sudirman, Denpasar, Bali 80234, Indonesia³Singatua Vet Care, Jl. MT. Haryono, Krajan, Siliragung, Banyuwangi, East Java 68488, Indonesia

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Case report: treatment of postpartum uterine prolapse in etawah crossbreed goat in Kesilir village, Siliragung district, Banyuwangi. *Bul. Vet. Udayana*. 18(4): 844-850. DOI:<https://doi.org/10.24843/bulvet.2026.v18.i04.p09>**Abstract**

Uterine prolapse is a condition in which the uterus protrudes through the cervix and outside the vulva, usually after childbirth (postpartum). In goats, this occurrence is relatively rare compared to that in cattle, but it still carries a high risk of mortality if not treated quickly and appropriately. This study aimed to report a case of uterine prolapse in a primiparous Etawah crossbreed goat (PE) after parturition in Sumberbening Hamlet, Kesilir Village, Siliragung District, Banyuwangi Regency. In this case, the animal was a female PE goat weighing 60 kg that had recently been born. The goat showed clinical signs in the form of a pink mass protruding from the vulva, behavioral changes, no appetite, and was unable to stand for 2 weeks. The patient was diagnosed with uterine prolapse and a prognosis of Fausta. The treatment in this case included cleaning the vagina down to the uterus by flushing with clean running water and washing with 2% povidone-iodine. Next, the vagina was repositioned by gently pushing by hand and sutured using nylon tape with a horizontal mattress suture pattern on the vaginal wall. The goats were injected intramuscularly (IM) with the antibiotic Oxytetracycline 200 mg/ml (Limoxin-200 LA[®] at a dose of 20 mg/kg body weight), vitamin A (80,000 IU), vitamin D3 (40,000 IU), and vitamin E (20 mg) per ml (Vitol-140[®] at a dose of 0.5-1 ml/10 kg body weight). Based on a two-week post-treatment follow-up, no recurrence of

uterine prolapse was observed. The goat was able to stand independently and had returned to its normal activity.

Keywords: Etawa crossbreed goat, postpartum, uterine prolapse

Abstrak

Prolapsus uteri adalah kondisi keluarnya uterus melalui serviks hingga menonjol ke luar vulva, biasanya terjadi setelah proses melahirkan (postpartum). Pada kambing, kejadian ini relatif lebih jarang terjadi dibandingkan pada sapi, namun tetap memiliki risiko mortalitas tinggi apabila tidak ditangani secara cepat dan tepat. Artikel ini bertujuan melaporkan kasus prolapsus uteri pada kambing peranakan etawa (PE) setelah melahirkan di Dusun Sumberbening, Desa Kesilir, Kecamatan Siliragung, Kabupaten Banyuwangi. Pada kasus ini hewan merupakan seekor kambing PE berjenis kelamin betina dengan bobot 60 kg dan baru saja melahirkan. Kambing menunjukkan tanda klinis berupa massa berwarna merah muda menonjol ke luar vulva, terdapat perubahan perilaku tidak nafsu makan dan tidak dapat berdiri selama 2 minggu. Kasus didiagnosis prolapsus uteri dengan prognosis fausta. Terapi yang dilakukan pada kasus ini yaitu dengan pembersihan vagina hingga uterus dengan metode *flushing* menggunakan air bersih mengalir dan dicuci dengan povidone iodine 2%. Selanjutnya dilakukan reposisi vagina dengan cara mendorong secara perlahan menggunakan tangan dan dilakukan penjahitan menggunakan pita berbahan nilon dengan pola jahitan *horizontal mattress* pada bagian dinding vagina. Kambing di injeksi secara intramuskular (IM) dengan antibiotik Oxytetracycline 200 mg/ml (Limoxin-200 LA[®] dengan dosis 20 mg/kg BB), vitamin A (80.000 IU), Vitamin D3 (40.000 IU), Vitamin E (20 mg) per ml (Vitol-140[®] dengan dosis 0,5-1 ml/10kg BB). Berdasarkan hasil dari pemantauan pasca penanganan kasus ini selama 2 minggu, kambing pada kasus ini tidak menunjukkan kejadian berulang, dan kambing tampak mampu berdiri dan beraktivitas dengan normal.

Kata kunci: Pasca melahirkan, peranakan kambing etawa, prolapsus uteri

INTRODUCTION

Goats are one of the livestock commodities that play a strategic role in the development of the national livestock industry in Indonesia and offer promising business prospects (Maesya & Rusdiana, 2018). The Etawa Crossbreed (PE) goat is a small ruminant livestock commodity with high economic value in Indonesia, both as a source of milk and meat (Cahyani, 2025). Goat farming contributes to the supply of animal protein, milk production, and raw materials for industries such as leather. Goat productivity is influenced by various husbandry management factors, including health. The health status of livestock is critical to the success and efficiency of production, and reproductive health plays a key role. Disorders of the goat reproductive system can hinder the sustainability and optimization of goat farming operations (Purba *et al.*, 2025). Two common reproductive disorders in goats are uterine prolapse and vaginal prolapse

Uterine prolapse is a reproductive emergency that occurs in cattle when the uterus protrudes through the cervix and vulva after parturition. This condition is most commonly found in cattle, particularly dairy cows, but can also occur in sheep, goats, pigs, horses, dogs, and cats, although at a lower incidence. Factors contributing to uterine prolapse include uterine atony, dystocia, retained placenta, hypocalcemia, prolonged labor, excessive pulling during delivery, and strong abdominal contractions resulting from persistent straining in animals. The etiology of uterine prolapse is multifactorial and is generally associated with a decrease in uterine tone after parturition, accompanied by an increase in intra-abdominal pressure. Uterine prolapse is a relatively uncommon condition in goats. In goats, prolapse can be partial or total and is

considered an emergency because of the high risk of infection and bleeding, with a poor prognosis that can lead to death (Taverne & Noakes, 2009).

The pathogenesis of uterine prolapse begins with the uterus still in a state of rest after childbirth and the cervix not fully closed. Under these conditions, decreased myometrial contractions cause the uterus to lose its ability to maintain its position within the abdominal cavity. Intra-abdominal pressure resulting from straining, coughing, or abdominal muscle contractions causes one of the uterine horns to invaginate through the still-open cervix. This invagination progresses to eversion, causing the entire uterus to protrude through the vulva of the cow. Once outside the body, the uterus experiences impaired venous return, leading to congestion and edema.

Uterine prolapse is attributed to two factors: maternal and hormonal factors. Maternal factors include uterine atony, hypocalcemia, twin pregnancy, retained placenta, dystocia, and a history of reproductive tract prolapse. In addition, poor physical condition and pelvic muscle weakness contribute to the development of prolapse. Regarding hormonal factors, increased levels of relaxin and estrogen prior to delivery cause relaxation of the pelvic ligaments and cervix, making the uterus more prone to eversion when accompanied by increased intra-abdominal pressure.

A diagnosis of uterine prolapse can generally be established based on the patient's medical history and a clinical examination. A history of recent parturition, dystocia, retained placenta, or hypocalcemia is important for establishing the diagnosis. Physical examination revealed a pink-to-dark red mass protruding from the vulva, with the uterine mucosal surface clearly visible. In cases where treatment is delayed, necrosis, gangrene, foul odor, and signs of shock or sepsis may be present. Ultrasound examination may be performed if necessary to ensure that no other organs, such as the bladder or intestines, have also prolapsed before uterine repositioning (Merck & Co. Inc., 2025).

Recovery from uterine prolapse is greatly influenced by the duration of the uterus outside the body, extent of tissue damage, presence of bacterial contamination, and speed of treatment. The prognosis is generally good if reduction is performed immediately before severe edema, necrosis, or uterine rupture occurs. Conversely, the prognosis is poor if prolapse is accompanied by severe bleeding, gangrene, sepsis, hypovolemic shock, or thromboembolism. Unlike vaginal prolapse, uterine prolapse generally does not increase the risk of recurrence in subsequent pregnancies if the predisposing factors are addressed and repositioning is performed correctly (Carluccio *et al.*, 2020).

Therefore, in this case, an Etawa crossbreed (PE) goat was reported to have suffered from uterine prolapse following parturition. The purpose of this study was to report the diagnosis, management, and post-treatment clinical response to the condition experienced by the goat in this case, so that it may serve as a reference for managing similar cases in the future.

RESEARCH METHODS

Clinical Signs and Medical History

The goat was a PE goat owned by a farmer residing in Sumberbening Hamlet, Kesilir Village, Siliragung Subdistrict, Banyuwangi Regency. This goat was female, with white and brown fur, and an estimated body weight of 60 kg, measured using a morphometric estimation method that involved measuring the chest circumference and body length. According to the owner's report, the goat had a pinkish mass protruding from its body, had lost its appetite, appeared lethargic and lying down, and had been unable to stand for the past two weeks. The goat in this case had given birth three times and had never experienced symptoms like this before. The goat

gave birth to three kids last night; two of them died, and one survived. The goats were kept in a wooden raised pens.

Physical Examination and Clinical Signs

Physical examination was conducted directly using inspection, adspsection, and palpation of the goat's body, particularly the reproductive organs. Physical examination revealed that the goat appeared lethargic and was unable to stand. Physical examination of the vagina revealed a round, red mass partially protruding from the vulva (Figure 1). The goat's body temperature was 39.1°C, with a heart rate of 68 beats per minute (bpm) and a respiratory rate of 28 bpm. All other vital signs were within normal limits.

Diagnosis and Prognosis

Based on the medical history and physical examination, the goat was diagnosed with uterine prolapse, and a favorable prognosis was predicted.

Treatment

The treatment administered in this case involved cleansing the vaginal mucosa of debris using a flushing method with clean running water, followed by the application of a 2% povidone-iodine antiseptic solution. Next, the prolapsed vagina was repositioned by gently pushing it back into place using the hands. The goats were then administered an intramuscular (IM) injection of the antibiotic oxytetracycline 200 mg/mL (Limoxin 200-LA[®], 1 mL/10 kg IM) to prevent secondary infection, followed by multivitamin A (80,000 IU), vitamin D3 (40,000 IU), and vitamin E (20 mg) per mL (Vitol-140[®] at a dose of 0.5–1 mL/10 kg body weight) intramuscularly (IM). Uterine prolapse was managed using a suturing technique with a nylon tape in a horizontal mattress suture pattern on the vaginal wall (Figure 1). The goal was to reposition the protruding vaginal mucosa back into the vagina. In this case, a nylon tape was used to reduce treatment costs and facilitate suture removal and wound care, which was effective. This procedure was performed without epidural anesthesia.

RESULTS AND DISCUSSION

The case of uterine prolapse in goats reported here occurred during the postpartum period and is believed to be associated with a decrease in the ability of the uterine muscle layer (myometrium) to contract and relax in a coordinated manner. It is characterized by clinical symptoms, such as complete protrusion of the uterus through the vulva, accompanied by edema. In goats, this condition is relatively less common than in cattle but still carries a high risk of mortality if not treated promptly and appropriately (Simões, 2025). Common predisposing factors include hypocalcemia, electrolyte imbalances, dystocia, retained fetal membranes, and suboptimal nutritional management during late pregnancy (Abbas & Abed, 2021; Meena *et al.*, 2025).

In this case, a female goat suffered from uterine prolapse, which was suspected to be triggered by hypocalcemia. The goat in this case was unable to stand for two weeks, a condition consistent with paresis caused by calcium deficiency. According to Rahmawati *et al.* (2021), goats with hypocalcemia experience anorexia, weakness, hind limb tremors, difficulty moving, and even an inability to stand. Furthermore, hypocalcemia slows uterine involution after parturition. It causes weakness in both skeletal and smooth muscles, resulting in the doe being unable to stand and experiencing impaired uterine contraction. Uterine atony can also increase the risk of prolapse because the uterus remains relaxed after fetal expulsion (Noakes *et al.*, 2019). Hypocalcemia and birth trauma are strongly associated with uterine prolapse. Hypocalcemia causes uterine atony and a decrease in the tone of the reproductive supporting tissues, causing the uterus to fail to contract and return to its normal position. Birth trauma

resulting from dystocia or obstetric manipulation damages the uterine supporting tissues. The combination of these two conditions, coupled with intra-abdominal pressure from straining, significantly increases the risk of uterine prolapse, particularly in postpartum goats (Kumar *et al.*, 2018).

In this case, the cow gave birth to three calves, of which two died and one survived. Calf deaths were most likely caused by a combination of intrauterine hypoxia and labor complications. Hypocalcemia in dams leads to weak and ineffective uterine contractions, resulting in prolonged labor (dystocia). Prolonged dystocia impedes uteroplacental blood flow and oxygen supply to the fetus, leading to hypoxia, metabolic acidosis, and ultimately, death (Noakes *et al.*, 2019). Fetuses that remain in the uterus for a longer period with limited oxygen supply are at a higher risk of fetal distress and intrauterine death. The difference in viability among the infants (two died and one survived) can be explained by several factors. The position of the fetus within the uterus affects blood flow distribution; a fetus in a position with better perfusion or one born sooner has a higher chance of survival. In addition, individual variations in tolerance to hypoxia play a role in the risk of fetal death (Noakes *et al.*, 2019).

In this case, the management of uterine prolapse in goats was carried out by systematically applying key principles, including thorough cleansing of the prolapsed uterine tissue, reduction of edema, manual repositioning of the uterus to its anatomical position, and prevention of prolapse through supportive therapy and vulvar retention suturing (Singh *et al.*, 2020). In this case, the treatment involved cleaning the vaginal mucosa up to the uterus using a flushing method with running clean water, followed by washing with 2% povidone-iodine antiseptic solution. Subsequently, vaginal repositioning was performed by gently pushing the uterus back into place using the hand. Subsequently, uterine prolapse was managed using a suturing technique with a horizontal mattress suture pattern applied to the vaginal wall (Nath *et al.*, 2020). After suturing, the vaginal mucosa was rinsed with an antiseptic to prevent secondary infection and reduce the risk of excessive inflammation. The horizontal mattress suture pattern is more commonly chosen for goats and sheep because the technique is simple, quick, economical, requires no special equipment, and generally provides sufficient vulvar retention after uterine re-positioning. Conversely, in cattle, particularly in cases of postpartum uterine prolapse with high intra-abdominal pressure or risk of recurrent prolapse, the Bühner technique is recommended because it provides a more even distribution of pressure, stronger retention, and lower risk of tissue trauma. The choice of suture pattern is tailored to the animal's condition, severity of the case, and species of the animal itself (Weaver *et al.*, 2018).

The treatment for this case was evaluated through physical examination. After suturing the vaginal mucosa, the protruding vaginal mucosa was repositioned. The uterine prolapse in this goat was monitored daily. Based on the results of post-treatment monitoring over a 2-week period, the goat in this case did not show any recurrence of the condition and appeared to be able to stand and move normally.

In this case, a combination of treatment involving antibiotics, multivitamins, and suturing was effective in managing uterine prolapse in goats. Although most reports indicate successful treatment, uterine prolapse should be regarded as a potentially fatal condition. Complications such as bleeding, severe contamination, necrosis, and even death can occur if treatment is delayed. The prognosis for uterine prolapse in goats is generally good when treatment is administered early and no severe tissue necrosis occurs (Singh *et al.*, 2020; Simões, 2025).

CONCLUSIONS AND SUGGESTIONS

Conclusions

In this case, the goat was diagnosed with uterine prolapse, and a favorable prognosis was established. The treatment consisted of aseptic uterine cleansing, manual reduction, horizontal mattress suturing, and administration of the antibiotic oxytetracycline and multivitamins, which successfully treated the case without recurrence.

Suggestions

Goat farmers should increase the monitoring of does during the postpartum period and improve nutritional management, particularly by ensuring adequate mineral intake, such as calcium, to prevent uterine prolapse. Education regarding risk factors and proper reproductive management must be continuously improved to support livestock health and productivity.

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Figure



Figure 1. Uterine prolapse in an Etawah Crossbreed (PE) goat (left) and management of uterine prolapse using a horizontal mattress suture pattern (right).