ShortCommunication

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Management of Accidental Uterine Rupture in a Pregnant Goat

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ABSTRACT

A doe in its advanced gestation was brought to the Veterinary Clinical Complex, ANDUAT, UP, after being met with a roadside accident that resulted in uterine rupture. Considering the animal to be critical, an emergency caesarean section was performed. Resultant of the surgical celiotomy, the doe delivered two fetuses, out of which only one survived.
***Keywords*:** Accident, Caesarean section, Doe, foetus, Pregnancy, Uterine rupture.

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INTRODUCTION

Uterine rupture (Coll-Roman *et al.*, 2023; Niwas *et al.*, 2023) is one of the most catastrophic and often fatal injuries that pregnant animals may experience as a consequence of an accident with a vehicle. Automobile accidents are the leading cause of injury and mortality in animals, and pregnant animals are potentially vulnerable to internal trauma as well as abdominal hernia (Singh *et al.*, 2022). Rupture of the gravid uterus may occur spontaneously due to unknown causes or consequent to abortion, dystocia, emphysematous foetus, chronic peritonitis with uterine adhesions, torsion of the uterus, dropsy of the foetal membranes and foetus, and excessive violence trauma in advance pregnancy (Kumar *et al.*, 2024). In animals with late-stage uterine rupture, the foetus and uterine contents escape into the abdominal cavity (Singh *et al.*, 2022). If the foetus is emphysematous or severely diseased, life-threatening peritonitis and shock are common complications. Ventral hernia of the gravid

The uterus is rarely seen in goats (Vijayanand *et al.*, 2009) and mostly occurs due to sudden rupture or trauma to the abdominal wall either by automobile accident (Singh *et al.*, 2022) or by fighting. An emergency laparotomy is required to remove the dead, save the live fetuses and dam, and repair the damaged uterus (Sharun and Erdogan, 2019; Cowley *et al.*, 2023).

CASE HISTORY AND OBSERVATIONS

A pluriparous pregnant doe, aged four years and weighing 26 kilograms, was brought to VCC with a complaint of an accident with an automobile vehicle. She was in the

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advanced stages of pregnancy, having completed about 140 days of gestation. Clinical examinations revealed no vaginal discharge. Upon palpating the abdomen during the clinical examination, fetal parts were perceived within the abdominal cavity (Fig. 1). Per-vaginal examination, conducted with adequate lubrication, revealed an entirely closed cervix. Other vital parameters, such as rectal temperature (103.6°F) and pink-coloured mucous membrane, were within normal ranges. However, there was a slight increase in respiration, pulse and heart rates.

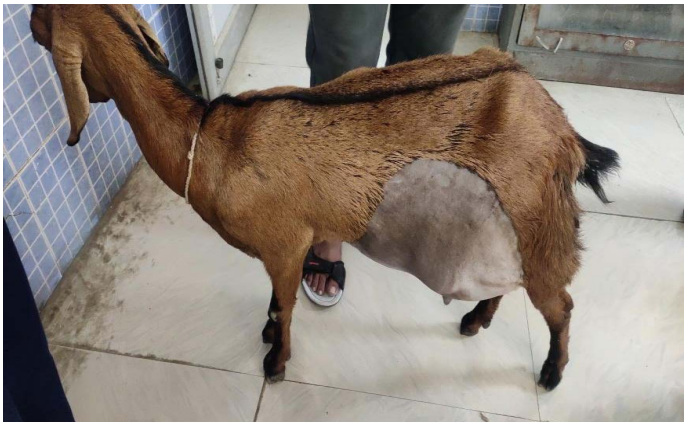

Fig. 1: The doe with uterine rupture due to automobile accidents.

TREATMENT AND DISCUSSION

Based on the patient's history and clinical examinations, the condition was diagnosed as uterine rupture(-Fig 2) and an immediate decision was made to perform a Laparohysterectomy. The entire process was carried out in lateral recumbency, utilizing a left flank approach. Regional anaesthesia with 2% Lignocaine (10 ml, inverted L block) was administered along with local infiltration at the site of the oblique incision. The surgical site was prepared aseptically. Laparotomy was conducted by making a 6 cm long oblique incision on the lower flank. The underlying subcutaneous layer was incised by taking care of the major blood vessel supply. The muscle layers were incised in their respective directions, and the muscle bellies separated. The peritoneum layer was also incised. An attempt was undertaken to exteriorize the uterus, which led to the finding of a severely ruptured uterus from the same region where the foetuses were removed (Fig 3). Immediate care to neonates was provided. The damaged uterus was sutured by the Cushing and Lambert suture pattern with the chromic catgut no. 1 (Fig 4). Exploration of the pelvic cavity revealed a tear in the uterine broad ligament, which was also repaired using chromic catgut no.2. The uterus was sutured from the cervical end to the ovarian end. Before suturing, the uterus was thoroughly cleaned with a normal saline solution to eliminate any debris, such as blood clots. After relocating the uterus, the peritoneum layer was sutured along with the internal abdominal muscle layers using a basic continuous suture pattern with chromic catgut no. 2. The remaining muscle layers were sutured separately with a basic continuous suture pattern. The subcutaneous layer was sutured using the subcuticular suture pattern. The skin was sutured with a horizontal mattress using non-absorbable suture material, nylon. The antiseptic dressing was done on the skin suture with the povidone-iodine ointment. Said operation led to the birth of twin foetuses; one was alive while the other was found to be dead. Postoperative care was provided to ensure the health and recovery of the goat and her live offspring. The doe was givenINTA-CEF-Tazo™(ceftriaxone and tazobactam) @ 10 mg/kg B.Wt., Melonex™ (meloxicam) @ 0.2 mg/kg B.Wt., and B-complex (Conciplex, 2 ml, IM) for 7 days. Regular antiseptic dressing of the surgical wound and proper postoperative management were undertaken. The case was recovered uneventfully

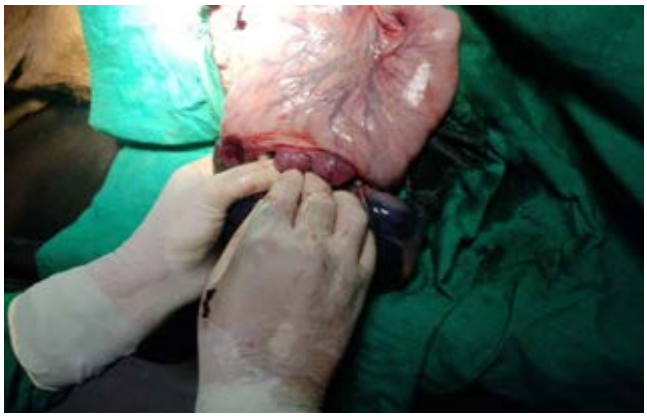

Fig. 2: Extraction of the kid from a ruptured uterus

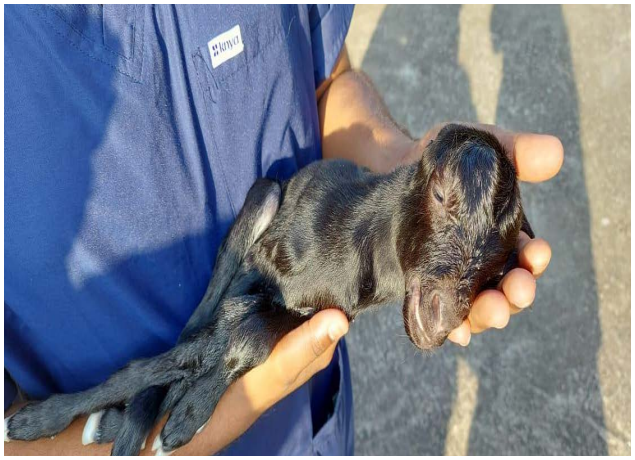

Fig. 3: Alive kid delivered from a ruptured uterus

Fig. 4: Repaired uterus of doe.

CONCLUSION

A swift and accurate diagnosis is crucial for making a proactive decision to perform an emergency laparotomy efficiently. Prompt handling of the case was vital to ensure the safety of both the mother and the lamb to prevent catastrophic bleeding from the ruptured uterus.

CONFLICT OF INTEREST

None

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