

International Journal of Advanced Biochemistry Research



ISSN Print: 2617-4693
ISSN Online: 2617-4707
NAAS Rating (2026): 5.29
IJABR 2026; 10(4): 338-340
www.biochemjournal.com
Received: 07-01-2026
Accepted: 10-02-2026

Amit Sangwan
Animal Health Specialist
(Veterinary Surgery and
Radiology), Haryana Pashu
Vigyan Kendra, LUVAS,
Hisar, Haryana, India

Jasmer Dalal
Animal Health Specialist
(Veterinary Gynecology and
Obstetrics), Haryana Pashu
Vigyan Kendra, LUVAS,
Hisar, Haryana, India

Rajendra Yadav
Animal Health Specialist
(Veterinary Medicine),
Haryana Pashu Vigyan
Kendra, LUVAS, Hisar,
Haryana, India

Corresponding Author:
Amit Sangwan
Animal Health Specialist
(Veterinary Surgery and
Radiology), Haryana Pashu
Vigyan Kendra, LUVAS,
Hisar, Haryana, India

Surgical management of gravid uterus hysterocele in a goat

Amit Sangwan, Jasmer Dalal and Rajendra Yadav

DOI: <https://www.doi.org/10.33545/26174693.2026.v10.i4e.8118>

Abstract

A five year old goat was presented with prolonged gestation period and history of ventral abdomen distension and swelling in udder. Physical examination revealed hard fetal head and limbs in udder swelling. The fetuses were live as confirmed by ultrasonography. Though the gestation period was completed but there were no signs of parturition. Three live fetuses were delivered through caesarian. Herniorrhaphy was done subsequent to caesarian. Postoperatively, antibiotic (Inj. Ceftriaxone @ 20 mg/Kg b. wt. Intramuscular) and analgesia (Injection Flunixinmeglumine @ 1 mg/Kg b. wt. Intramuscular) were given for five days. Animal showed uneventful recovery after fifteen days with live fetuses.

Keywords: Goat, prolonged gestation, ventral hernia, caesarean section, herniorrhaphy, live fetuses

Introduction

Passage of body organs or tissues via natural or acquired openings is known as hernia. This condition can be observed in almost all animal species. Lateral abdominal hernia in advanced pregnant ruminants occur occasionally and more frequently to the right side of abdomen (Roberts, 1971) [13]. It may also lead to dystockia (Oehme and Prier, 1974) [9]. However, cases of dystocia in goat are not commonly reported (Bhattacharyya *et al.*, 2015) [4]. Trauma which may be a kick, blow, horn injury or falling on blunt objects or accident from automobile was reported to be the main cause of ventral abdominal hernia (Radhakrishnan *et al.*, 1993) [12] and rupture of prepubic tendon (Frank, 1981; Arthur, 1989) [6, 3]. Such conditions are usually observed in pluriparous animal in advance pregnancy where the abdominal muscles and prepubic tendon became weak and fragile (Vijayanand *et al.*, 2012) [15]. The present case report discuss a rare condition in goat where gravid uterus hysterocele and dystocia thereof has been resolved successfully with surgical intervention.

Case History and Diagnosis

A five year old pregnant goat with a history of swelling over leftventro-lateral abdomen and udder (Fig.1). The animal was about to complete her gestation period in three days but hit at abdomen with horn by other goat one day ago. On physical examination the skeleton of fetus was felt over skin swelling. The physiological parameters like rectal temperature (101.3 °F), heart rate (68 per minute), Respiration rate (14 per minute) were found within normal range. The case was diagnosed as hysterocele of gravid uterus.

Treatment

The goat was restrained in lateral recumbency. For surgical preparation of the animal the left lateral abdomen from last rib to stifle fold was shaved and scrubbed thoroughly using chlorhexidine scrub. Antisepsis was achieved using povidone iodine solution (10%). Keeping in view of the pregnancy status of the animal only local anesthetic Inj. Lignocaine HCL 2% (15 ml) was given at the site of incision. A fifteen centimeter long obliquevertical incision was given over the hernia. After skin incision the uterine wall was directly approached after some blunt muscle separation as the hernial ring was enough wide to easily approach the uterus. The uterine wall was incised at an area where there was minimum vasculature present. Threelive fetuses were retrieved from uterus. All this procedure was made quickly work the safety of fetus.

The fetuses were cleaned and dried with towel and their umbilicus was ligated. The uterine lumen was flushed with metronidazole solution. The uterus was closed with suture vicryl no. 2/0 applied in cushioning and then lambert pattern (Fig. 4). The muscles were closed in two layers using suture chromic catgut no. 2 in interlocking continuous pattern. Skin was closed with suture silk no. 1 applied in horizontal pattern (Fig. 2).

Post operatively, the animal was given antibiotic (Inj. Ceftriaxone @ 20 mg/Kg b. wt. Intramuscular), analgesic (Inj. Flunixinmeoglumine @ 1 mg/Kg b. wt. Intramuscular) and Inj. Tribivet 5 ml intramuscular for one week. Antiseptic dressing of skin sutures was done using povidone iodine (10%) for fifteen days after which skin sutures were removed. The animal showed uneventful recovery and all three kids survived (Fig. 3).



Fig 1: Goat presented with severe swelling on left ventrolateral abdomen reaching upto udder.



Fig 1: Goat presented with severe swelling on left ventrolateral abdomen reaching upto udder.



Fig 2: After caesarian and herniorrhaphy skin sutures applied in horizontal mattress pattern.



Fig 3: Post operatively all three kids with doe.



Fig 4: Uterine incision closed using cushioning and lambert suture pattern with vicryl no. 2/0.



Fig 2: After caesarian and herniorrhaphy skin sutures applied in horizontal mattress pattern.



Fig 3: Post operatively all three kids with doe.



Fig 4: Uterine incision closed using cushing and lambert suture pattern with vicryl no. 2/0.

Discussion

A hernia lower to the stifle fold is considered as ventral abdominal hernia and above the stifle fold or any other site on abdomen is considered as lateral abdominal hernia (Tyagi and Singh, 1993) [14]. It may further be reducible or irreducible depending upon the ease to push back the hernia contents to their normal anatomical location (Tyagi and Singh, 1993) [14]. In this case the hernia is traumatic, ventral abdominal reducible hernia. The hernia swelling reached from last rib to stifle fold horizontally and from paravertebral fossa to udder vertically. A hernia must be differentiated from abscess, cyst, tumor, haematoma etc. so that proper line of treatment can be decided. In collaboration with history, clinical sign and examination of animal, plain and contrast radiography and ultrasonography can play pivotal role to differentiate hernia from other confusing conditions (Abidin and Ramadan, 2001) [1]. Lack of availability of resources and poor economic condition of animal owner restrict our diagnosis to history, physical examination and clinical signs and symptoms which ultimately proved to be true.

In present case horn trauma from other goat lead to ventral hernia of full term gravid uterus with three live fetuses confirmed only with their movement felt during physical examination.

In most of such cases fetuses found dead or not survive (Kumar *et al.*, 2018 and Parvez *et al.*, 2016) [8, 10]. In such traumatic cases the uterine wall may rupture compromising life of fetus. Lately reported cases may develop adhesions, necrosis, and ruptured hysterocele (Peker *et al.*, 2019) [11]. In such timely reported cases emergency caesarian is always the treatment of choice (Erdogan *et al.*, 2015 and Khan *et al.*, 2018) [5, 7].

Diseases associated with reproduction always give an economic set back to the farmers (Ali *et al.*, 2019) [2]. Such cases are rarely reported either due to lack of knowledge of the goat rears or lack of available facilities. The success of this case depended mainly upon the timely reporting of the case and emergent caesarian section done. It can also be concluded that lack of high end diagnostic facilities should not overcome the zeal to save life of animal and farmer's economy.

References

1. Abidin-Bey MR, Ramadan RO. Retrospective study of hernias in goats. *Sci J King Faisal Univ.* 2001;2(1):77-88.
2. Ali S, Zhao Z, Zhen G, Kang JZ, Yi PZ. Reproductive problems in small ruminants (sheep and goats): A

- substantial economic loss in the world. *Large Anim Rev.* 2019;25(6):215-223.
3. Arthur GH. *Veterinary reproduction and obstetrics.* 6th ed. London: Bailliere Tindall; 1989. p. 200.
4. Bhattacharyya HK, Fazili MR, Bhat FA, Buchoo BA. Prevalence and dystocia of sheep and goats: A study of 70 cases (2004-2011). *J Adv Vet Res.* 2015;5:14-20.
5. Erdogan G, Ucar EH, Peker C, Kilic N. Prolonged co-twin foetal retention in a sheep: Caused by hysterocele. *Large Anim Rev.* 2015;21(2):87-89.
6. Frank ER. *Veterinary surgery.* 7th ed. New Delhi: CBS Publications; 1981.
7. Khan S, Satheesh A, Sabarinadh VR, Ranjith Mohan M, Sidhique SA, Panikkassery S. Surgical management of dystocia due to uterine adhesion in a goat. *J Entomol Zool Stud.* 2018;6(6):988-991.
8. Kumar A, Katiyar R, Gautam D, Shivaraju S, Prasad JK, Ghosh SK. Hysterocele along with false or secondary extrauterine pregnancy in a goat: A rare case presentation. *Theriogenology Insight.* 2018;8(1):45-47.
9. Oehme FW, Prier JE. *Textbook of large animal surgery.* Baltimore: Williams and Wilkins; 1974. p. 175.
10. Parvez MA, Sutradhar BC, Pallab MS, Hasan T, Khatun R. Surgical correction of ventral abdominal hysterocele in gravid uterus of a doe. *Res J Vet Pract.* 2016;4(4):76-79.
11. Peker C, Uçar EH, Varoğlu O, Erdoğan G. An uncommon fetal retention case: Ruptured ventral hernia in a sheep. *J Hell Vet Med Soc.* 2019;70(4):1901-1904.
12. Radhakrishnan C, Balasubramanian S, Thilagar S. Repair of ventral metrocele in a goat. *Vet Rec.* 1993;132:92.
13. Roberts SJ. *Veterinary obstetrics and genital diseases.* 2nd ed. India: CBS Publishers and Distributors; 1971. p. 184, 291.
14. Tyagi RPS, Singh J. *Ruminant surgery: A textbook of the surgical diseases of cattle, buffaloes, camels, sheep and goats.* New Delhi: CBS Publishers; 1993. p. 484.
15. Vijayanand V, Gokulakrishnan M, Rajasundaram RC, Thirunavukkarasu PS. Ventral hernia (hysterocele gravid) in a goat: A case report. *Indian J Anim Res.* 2009;43(2):148-150.