

Hysterocele along with False or Secondary Extrauterine Pregnancy in a Goat: A rare Case Presentation

Abhishek Kumar^{1*}, R. Katiyar¹, Deepesh Gautam², Shivaraju, S.², J.K. Prasad¹ and S.K. Ghosh¹

¹Division of Animal Reproduction and ²Division of Surgery, Indian Veterinary Research Institute, India

*Corresponding author: abhiawadhesarita@gmail.com

ABSTRACT

A full term non-descript pluriparous doe aged three and half years was presented to Referral veterinary polyclinic (Veterinary Gynaecology and Obstetrics section) of the Indian Veterinary Research Institute, Izatnagar with the history of ventral abdominal enlargement for the past one month. Animal was healthy and no abnormal genital discharge was seen. Previous history of trauma or accident was unclear as per owner. Ultrasonographic examination revealed more than one live fetuses. Caesarean section was conducted which revealed two fully developed intra-uterine live fetuses and one ill developed abdominal (extra uterine) dead fetus adhered to omentum. Fetus, abdominal in location was sterile and no sign of peritonitis was seen in goat. Uterine rupture was found to be chronic as site of rupture was scarred or fibrosed. As per the owner, one of those two live fetuses died later after 1-2 days and abdominal swelling took one month to regain its original shape and size.

Keywords: Goat, Hysterocele, Extrauterine pregnancy, Caesarean section

Ventral hernia of gravid uterus (hysterocele) is uncommon and occasionally observed in ruminants mostly due to sudden blow or trauma to the abdominal wall (Radhakrishnan *et al.* 1993) but, it may occur due to weakening of abdominal muscles or due to rupture of pre-pubic tendon (Vijayanand *et al.* 2009). False or secondary extrauterine pregnancy is occasionally seen in all domestic animals except mare (Roberts, 1971). In this condition, fetus reaches of recognizable size in uterus, then it escapes either in abdominal cavity through tear in uterus (abdominal pregnancies) or in vagina through cervix (vaginal pregnancies). The cause of uterine rupture is largely unknown but, it may occur due to violence or trauma, uterine torsion, weakening of uterine musculature or chronic perimetritis (Roberts, 1971).

History and Clinical Examination

A non-descript doe of three and half years age was presented to the Veterinary Gynaecology

and Obstetrics section of the Referral Veterinary Polyclinic of Indian Veterinary Research Institute, Izatnagar with the history of ventral abdominal enlargement for the past one month (Fig. 1). Previous history of trauma or accident was unclear. Animal was at full term but no signs of straining or restlessness observed as per the owner.

Animal was alert and active with rectal temperature recorded 103.2°F. On palpation of ventral abdominal wall, fetal movements were felt. On per-vaginal examination, no abnormal genital discharge was present. Pre-pubic tendon rupture was ruled out during examination. On USG examination, more than one live fetus was revealed. The animal was immediately referred for Caesarean section.

Surgical correction and Post-operative care

The animal was restrained in right lateral recumbency and the incision site (left



Fig. 1: Goat presented in polyclinic



Fig. 2: Site of uterine rupture following debridement

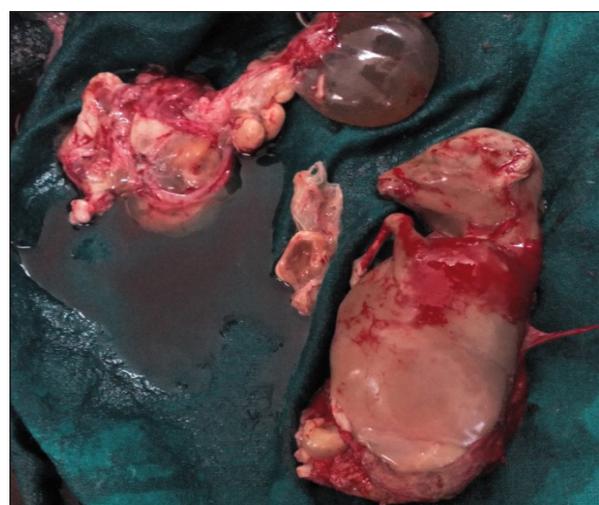


Fig. 3: Ill developed fetus excised from omentum



Fig. 4: Two live fetuses after C-section

ventrolateral oblique) was prepared aseptically. Fluid therapy was instituted immediately and incision site was infiltrated by local anaesthetic (2% Lignocaine hydrochloride® inj.-5 mL) solution. Gravid uterus was exteriorized after skin incision as muscle was ruptured. An incision was made on uterus and two fully developed live fetuses were extracted (Fig. 4). A small scarred or fibrosed rupture was observed on ventral aspect of uterus which was confirmative of trauma or accident which might have occurred during gestation. Also, one small fetus abdominal (extra uterine) in location adhered to omentum was found which might

have descended through ruptured site. This fetus was excised along with adhered omental part and removed (Fig. 3). Uterine rupture which was fibrosed was made fresh through debridement (Fig. 2) and both uterine openings was closed by absorbable suture material (chromic catgut No. 1 size) using inversion suture pattern (Lembert followed by cushing). After suturing of uterus, abdominal cavity was lavaged with luke warm normal saline to remove the debris. Just before the last suture of uterus, Cleanex® bolus (Nitrofurazone I.P 60 mg, Metronidazole I.P 100 mg, Urea I.P 6 gm, Povidone Iodine I.P 60 mg) was placed in uterine cavity. The teared

abdominal muscles and subcutaneous tissue were sutured with vicryl (No. 1 size) in a simple continuous suture pattern. Skin was sutured with simple interrupted suture technique using polyamide (No. 1 size).

Post-operative care and management

Owner was advised for regular dressing of suture line with povidone iodine (liq.) and Soframycin ointment. Taxim[®] inj. (500 mg) *bid* IM for 7 days and Melonex[®] inj. (2 mL) *sid* IM for 4 days were prescribed. Owner was instructed to bring the animal after 15 days. Sutures were removed after 15 days post-operative. No complications in the animal was observed, suture line was clean and animal appeared healthy. As per the owner, one of those two live fetuses died 1-2 days after surgery and abdominal swelling took one month to regain its original shape and size.

DISCUSSION

Ventral hernia of gravid uterus is rarely observed in small ruminants (Vijayanand *et al.* 2009) mostly due to sudden blow or trauma to the abdominal wall which was consistent with our report. In above presented case, false or secondary extrauterine pregnancy was also present due to uterine rupture which was a definite indication of any trauma or accident during course of gestation. Secondary extrauterine pregnancy is very rare in goat with scarce report (Patil *et al.* 2004). In this condition, fetus reaches to a recognizable size in the uterus, and then it escapes either in abdominal cavity or vagina. The method of choice in such cases is laparohysterotomy as the ruptured uterus gets failed to expel the fetus due to feeble myometrial contractions. Successful management following C-section helped goat to recover from the condition.

CONCLUSION

A rare case of hysterocele with secondary extrauterine pregnancy and its successful management in the goat is reported.

ACKNOWLEDGEMENTS

The corresponding author would like to thank Director, Indian Veterinary Research Institute for providing financial assistance in the form of institutional Fellowship.

REFERENCES

- Patil, D.B., Kelawala, N.H., Tank, P.H., Parikh, P.V., Patel, B.M. and Desai, T. 2004. Ectopic pregnancy in goat: A case report. *Indian Journal of Veterinary Surgery*, **25**: 2.
- Radhakrishnan, C., Balasubramanian, S. and Thilagar, S. 1993. Repair of ventral metrocele (gravid) in a goat. *The Veterinary Record*, **132**(4): 92-92.
- Roberts, S.J. 1971. *Veterinary Obstetrics and Genital Diseases*. 2nd Edition. CBS Publishers and Distributors, India, pp. 179 & 184.
- Vijayanand, V., Gokulakrishnan, M., Rajasundaram, R.C. and Thirunavukkarasu, P.S. 1993. Ventral hernia [hysterocele - gravid] in a goat: A case report. *Indian Journal of Animal Research*, **43**(2): 148-150.