Haryana Veterinarian (Dec., 2025) **64(2),** 141-142 ISSN 0033-4359 (P)

Clinical Article

MANAGEMENT OF FOETAL ANASARCA AND FETAL ASCITES IN A MECHERI SHEEP

SARANYA THANGAVEL*, GOPIKRISHNAN DURAISAMY, PALANISAMY MAHAKRISHNAN, SELVARAJU MANI, RAJA SENGODAN and JAWAHAR VINAYAGA SENTHILKUMAR
Department ofVeterinary Gynaecology and Obstetrics, Veterinary College and Research Institute (VCRI), Tamil Nadu Veterinary and Animal Sciences University, Namakkal- 637002, India

Received: 27.02.2025; Accepted: 14.04.2025

SUMMARY

A two-year-old, full-term pregnant sheep was presented with the head and one forelimb of a dead fetus hanging through the vulva. Upon examination, the exposed parts of the fetus showed signs of edema. Vaginal examination revealed a fluid-filled fetal abdomen. The condition was diagnosed as foetal anasarca along with foetal ascites, which caused dystocia. The fetus was delivered vaginally after mutational operation. The sheep was treated with antibiotics and anti-inflammatory drugs for three days, which made a full recovery without complications.

Keywords: Dystocia, Foetal anasarca, Foetal ascites, Mecheri sheep

How to cite: Thangavel, S., Duraisamy, G., Mahakrishnan, P., Mani, S., Sengodan, R. and Senthilkumar, J.V. (2025). Management of foetal anasarca and fetal ascites in a Mecheri sheep. *Haryana Veterinarian.* **64(2)**: 141-142.

Dystocia occurs when labouris prolonged or interrupted or when the fetus was delivered with assistance (Cowley *et al.*, 2023) and commonly reported in cattle (Roberts, 1986), buffalo (Singhal *et al.*, 2016) and sheep (Selvaraju *et al.*, 2008) when compared to goats (Hanie, 2006). The reported incidence of dystocia in small ruminants ranges between 2.5 to 3.1%. However, these rates arebased onlimited studies in sheep and recent data on goat is unavailable (Coll-Roman *et al.*, 2023). Faulty disposition (45.45%) and incomplete cervical dilatation (42.10%) were the major etiologies of dystocia in small ruminants (Sharma *et al.*, 2014). Foetal anasarca is a dropsical condition causing dystocia in domestic animals, commonly seen in cows rarely in sheep (Purohit, 2006). Foetal anasarca occurs when there is no progress during the second stage of parturition despite the foetus being carried to term. This results in increased foetal volume due to excessive fluid accumulation in the subcutaneous tissues, particularly in the head and hindlimbs (Noakes *et al.*, 2019). This could result in dystocia due to oversized fetus entering the birth canal. Apart from this, various aetiologies such as recessive autosomal traits, physical and environmental factors, viral infections during pregnancy, maternal vitamin deficiencies and fetal exposure to toxic substances have been reported by Jones *et al.* (1997) and Chandrasekaran *et al.* (2015). The present case discusses the successful management of dystocia due to fetal anasarca in a Mecheri sheep.

A 2-year-old full term pregnant Mecheri sheep was presented to the teaching Veterinary Clinical Complex, VCRI, Namakkal with the head and right forelimb of dead foetus hanging out of the vulva. Owner reported that water bag ruptured 24 hours back and owner tried to remove the foetus himself by traction but failed. On general examination, the animal exhibited a normal body temperature (39.5° C) and pink and moist conjunctival mucus membrane. The part of hanging foetus revealed edematous head and forelimb. Vaginal examination revealed fully dilated cervix and fluid filled foetal abdomen. The entire foetus was edematous with fluid filled abdomen. Based on the clinical examination, the condition diagnosed as foetal anasarca accompanied by foetal ascites, which resulted in dystocia.

Following epidural anaesthesia (2 ml, 2% Lignocaine hydrochloride), vaginal passage was lubricated with liquid paraffin. A puncture was made in the ventral abdomen of the foetus with an obstetrical eye hook. Around five litres of fetal fluid were drained out andevis cerated visceral organs were removed and the foetus was removed by gentle traction (Fig. 1 and 2). The fetal membrane was also removed manually, which was edematous (Fig. 3). During external examination of the deceased fetus, diffuse subcutaneous edema was noted, accompanied by head enlargement and limbs swelling. The ewe was treated with inj. Oxytocin @ 5IU IM, inj. Enrofloxacin @ 5mg /kg IM, inj. Meloxicam @ 0.5 mg/ kg andinj. Chlorpheniramine maleate@ 0.5 mg/kg. Antibiotic and anti-inflammatory drugs were administeredfor an additional three days and the sheep recovered without complications.

Animals in dystocia do not progress appropriately from stage one to stage two, through stage two or signs of labour are missed by the owner. Severe tissue swelling can oocur in foetal anasarca, often accompanied by excessive fluid accumulation in the peritoneal and pleural cavities. Additionally, dilation of the umbilical and inguinal ring along with hydrocele may be present (Noakes *et al.*, 2019). Fetal membranes dropsy, electrolyte hemostasis disturbance

*Corresponding author: saranyathangave100@gmail.com

Fig. 1. Edematous fetal head

Fig. 2. Anasarcous fetus

or lymphatic obstruction are the factors contributing to foetal anasarca (Arthur *et al.*, 2001). The anasarcous fetus can be delivered by manual correction and traction, if the birth canal is sufficiently dilated, (Purohit, 2006), however, most of the anasarcous fetuses are expelled dead. Co-occurrence of fetal ascites in this condition could be treated by removing the fluid from the fetal abdomen (Singhal *et al.*, 2018), which is of no great loss as these foetuses are usually dead or do not survive even if delivered alive (Roberts, 1986). Forced extraction is usually successful in removing large anasarcous foetuses and fetotomy including amputation of the forelimb and evisceration may occasionally be necessary if the foetus is too large (Roberts, 1986). Ultrasonography can partially diagnose many common foetal complications during pregnancy, carefully monitoring or termination is required for such pregnancies (Laiju *et al.*, 2012). Dystocia resulting from foetal anasarca in a Mecheri sheep was effectively managed through fetal abdominal puncture leading to a successful vaginal delivery, as documented in this report.

Fig. 3. Edematous fetal membrane

REFERENCES

Arthur, G.H., Noakes, D.E., Parkinson, T.J. and England, G.C. (2001). Veterinary Reproduction and Obstetrics. (8th Edn.,) W.B. Saunders Co., Ltd., Philadelphia. pp. 119-143.

Chandrasekaran, D., Selvakumar, S., Suresh Kumar, R., Pothiappan, A.K.D.P. and Balasubramanian, S. (2015). Per-vaginal delivery of anasarcous foetus in a Tellicherrydoe. *Indian J. Anim. Reprod.* **36(1)**: 60-61.

Coll-Roman, L.M., Cabrera, C., VanderBroek, A.R., Bauck, A.G., Kelleman, A.A., Pozor, M.A., Stockler, J.W., Wiley, C., Scully, C., Mackay, E.E., Depenbrock, S.M., Fecteau, M.E., Abraham, M., Leduc, L., Noll, C.V., Hernandez, J.A. and Luethy, D. (2023). Multicenter study of uterine tears and other reproductive complications in periparturient goats presented to veterinary teaching hospitals. *J. Vet. Intern. Med.* **37(6)**: 2623-2630.

Cowley, J., Stockler, J. and Maxwell, H. (2023). A review of small ruminant caesarean section: Case selection, surgical techniques, care of the neonates and postoperative care of the dam. *Clinic. Theriogenol.* **15**: 70-81.

Hanie, E.A. (2006). Obstetrical Procedures. In: Large Animal Clinical Procedures for Veterinary Technicians, Elsevier. pp. 413-431.

Jones, T.C., Hunt, R.D. and King, N.W. (1997). Veterinary pathology (6th Edn.), William and Wilkins. pp. 1149-1221.

Laiju, M.P., Ranjith Mohan, M. and Francis Bastin, P. (2012). Fetal anasarca twins with hydroallantois in Malabari does. *J. Ind. Vet. Assoc.* **10(1)**: 52-53.

Noakes, D.E., Parkinson, T.J. and England, G.C.W. (2019). Veterinary Reproduction and Obstetrics (10th Edn.), Elsevier. pp. 169-193.

Purohit, G.N. (2006). Dystocia in the sheep and goat-A review. *Indian J. Small Rumin.* **12(1)**: 1-12.

Roberts, S.J. (1986). Veterinary Obstetrics and Genital Diseases, (3rd Edn.), CBS Publishers and Distributors. pp. 326-352.

Selvaraju, M., Palanisamy, M., Ravikumar, K., Prabaharan, V., Ravi, R., Ezakial Napolean, R. and Chandrahasan, C. (2008). Dystocia due to foetal anasarca with Ascites in a sheep- a case report. *J. Vet. Anim. Sci.* **39**: 62-63.

Sharma, A., Kumar, P., Singh, M. and Vasishta, N. (2014). Retrospective analysis of dystocia in small ruminants. *Intas Polivet.* **15(2)**: 287-289.

Singhal, S., Honparkhe, M., Kumar, A., Singh, H., Singh, N. and Brar, P.S. (2016). A case of rare cleft palate-lip complex associated with macroglossia and absence of facial bones. *Indian Vet. J.* **93(07)**: 86-87.

Singhal, S., Honparkhe, M., Singh, H., Singh, N. and Kumar, A. (2018). Delivery of ascitic buffalo fetus through abdominal puncture or partial fetotomy. *Buffalo Bull.* **37(4)**: 597-599.