

Clinical Article

**DYSTOCIA DUE TO FETAL ANASARCA COUPLED WITH
ACHONDROPLASIA OF ONE FOETUS IN TWIN
PREGNANCY OF A GOAT**

**Raju Kumar Dewry*¹, Dibyajyoti Talukdar², Samudra Bikash Hazarika³,
Biswajit Saikia³ and Hanuman P. Yadav¹**

*¹PhD Scholar, ICAR-National Dairy Research Institute, Karnal, Haryana-132001

²Department of Animal Reproduction, Gynaecology and Obstetrics, College of Veterinary
Science, College of Veterinary Sciences & Animal Husbandry, Central Agricultural
University, Selesih, Aizawl– 796014

³Department of Animal Reproduction, Gynaecology and Obstetrics, College of Veterinary
Science, College of Veterinary Sciences, Khanapara, Guwahati-781022, Assam, India

*E-mail: rajudewryvet75@gmail.com

Abstract: Dropsical conditions like fetal ascitis, fetal anasarca, edema of the allanto chorion, hydrops of the amnion or allantois or both etc. are reported to be causes of dystocia (Roberts, 1971). Twin pregnancy with foetal anasarca of one foetus has also been observed as an occasional cause of dystocia in goats. Therefore, a rare case of dystocia due to foetal anasarca coupled with achondroplasia of one foetus in twin pregnancy and its successful management in a non-descript goat of Assam is placed on record.

Keywords: Achondroplasia, dystocia, fetal anasarca, goat, twin pregnancy.

CASE HISTORY AND OBSERVATIONS

A two years old doe was presented to the Teaching Veterinary Clinical Complex, CVSc., AAU, Khanapara, Guwahati with a history of straining, showing discomfort towards normal daily routine activities and ruptured water bag. The owner reported that animal completed its gestation period and initially it was attended by a quack and while his manipulation and traction both the hind legs of foetus detached from the rest of the body. On clinical examination, ruptured allantoic membrane with exposed fetal ears through the vulva was noticed (Fig 1). The physiological parameters were within the normal range.

TREATMENT AND DISCUSSION

Initially medical treatment was carried out by giving slow intravenous calcium borogluconate 100 ml and ringer's lactate 300 ml. After 1 hour intravenous dexamethasone was given. No response was noticed from the animal and unable to deliver the fetus. Finally caesarian operation was planned with proper aseptic measures.

The goat was placed in right lateral recumbency on a surgical table, left paramedian i.e. lower flank region was aseptically prepared using povidone iodine. Linear infiltration

block was performed using 2% lignocaine hydrochloride (10-15 ml). Longitudinal surgical skin incision around 10 cm was given, subcutaneous tissue and fascia was separated. Incised rectus abdominus muscle, transverse abdominus muscle and peritoneum. Initially left gravid uterine horn was exteriorized and incised. One alive (for few seconds) malformed achondroplastic foetus was taken out. The horn was checked for other foetus and another dead foetus was taken out. Before closure of uterus the uterine horn was flushed with normal saline and two Furea boluses (Pfizer Animal Health Ltd, Sandwich) were placed in the horn. The uterine incision was closed with an absorbable monofilament suture on a tapered needle in a continuous inverting pattern (chromic catgut size, 1-0) using two layers of Cushing and Lembert suture pattern. The peritoneum and transverse abdominal muscle were closed with chromic catgut size 1-0 using simple continuous suture pattern. The skin incision was closed with nylon size 1-0 using horizontal mattress suture pattern. As a post operative care, the animal was provided systematic antibiotic (Amoxicillin and Cloxacillin 500 mg I/M) along with other supportive treatments including antihistamines, anti-inflammatory and analgesics (Pheniramine Maleate 2 ml I/M and Meloxicam 1.5 ml I/M) for the next 5 days and regular dressing of the wound was done for 10 days with povidone iodine solution till the complete healing. After 10 days the skin suture was cut and the animal was found to be in normal physiological condition.

On examination it is found that one foetus was normal and other foetus having generalized oedema of body with shortened forelimbs as compared to rest of the body was noticed (Fig 2). It weighed 11.5 kg, while the normal dead foetus having weight of 1.2 kg. The monster foetus had pot belly, disproportionate dwarfism, a short vertebral column, abnormal short legs and relatively large, round head with cleft palate and protruding tongue with associated developmental defects like scrotal hernia. The neck appeared to be short and thick. Eyes were small and ears were bigger in size. The muscles of the trunk and ventral abdominal region were disproportionately developed leading to an enlarged abdomen with the accumulation of ascetic fluid. Sloss and Dufty (1980) suggested that obstruction by lymphatics prevents the circulation of peritoneal fluid and ascites could be due to diminished urinary excretion. The genetic defects that caused developmental anomalies in foetus could be associated with autosomal recessive genes and chromosomal aberrations (Sloss and Dufty, 1980; Reddy *et al.*, 2008). Scrotal sac was thin and membranous and was filled with sticky fluids with herniation in which omentum passed down the inguinal canal in contact with spermatic cord lying in the cavity of tunica vaginalis. Widening of rima oris, agenesis of lips and dental pad devoid of

teeth eruptions were evident. The monster revealed typical features of achondroplasia as described by Roberts (1971); Jana and Jana (2009). Achondroplasia of varying degrees have been attributed to lethal autosomal genes where line or inbreeding is practiced (Dabas *et al.*, 2013).

SUMMARY

A case of Dystocia due to fetal anasarca coupled with achondroplasia of one foetus in twin pregnancy was successfully delivered by caesarean section in a doe is reported.

ACKNOWLEDGMENT

The authors are thankful to Director, Teaching Veterinary Clinical Complex, College of Veterinary Science, Assam Agricultural University Khanapara, Guwahati for providing necessary facilities to handle the case.

REFERENCES

- [1] Dabas, V.S., Sharma, V.K. and Chaudhari, C.F. 2013. Dystocia due to fetal anasarca coupled with amelia of one foetus in twin pregnancy in a buffalo. *Buffalo Bulletin*, 32 (2): 83-84.
- [2] Jana, D. and Jana, M. 2009. Achondroplastic caprine foetal monstrosity with anury, atresia ani and scrotal hernia. *Indian Journal of Animal Reproduction*, 30 (1): 78-79.
- [3] Reddy, Y.R., Kumar, N.V., Naidu, T., Subramaniam, G., Ali, S.M. and Kumar, P. 2008. Bull Dog lethal in Punganur cattle, *Pashudhan*, 34: 1.
- [4] Roberts, S.J. 1971. *Veterinary obstetrics and genitaldiseases*, 2ndEdn. C.B.S. Publisher and distributors, Delhi, pp.70-73.
- [5] Sloss, V. and Dufty, J.H. 1980. *Hand book of bovine obstetrics*, Waverly Press, Mt. Royal and Guilford Aves, Baltimore, U.S.A., pp.121.



Fig 1. Dystocia due to fetal anasarca in a Goat



Fig 2. Foetal monster with normal dead foetus