ShortCommunication

DOI: 10.48165/ijar.2024.45.02.20

The Indian Journal of Animal Reproduction

The official journal of the Indian Society
for Study of Animal Reproduction

Year 2024, Volume-45, Issue-2 (December)

ISSN 0970-2997 (Print)

ISSN 2583-7583 (Online)

Dystocia Due to Twin Hydrocephalic Fetus in an Osmanabadi Goat

Anil Dinkarrao Patil*, Yogesh Bibhishan Bhosale

Department of Animal Reproduction, Gynaecology & Obstetrics College of Veterinary & Animal Sciences, MAFSU, Udgir

ABSTRACT

The hydrocephalic twin in an Osmanabadi goat was reported and smooth delivery was performed using obstetric maneuvers.

Keywords: Dystocia, Hydrocephalic, Osmanabadi Goat, Twin Fetus

How To Cite: Patil, A. D., & Bhosale, Y. B. (2024). Dystocia due to twin hydrocephalic fetus in an Osmanabadi goat. The *Indian Journal of Animal Reproduction,* 45(2), 99-101.10.48165/ijar.2024.45.02.20

INTRODUCTION

Hydrocephalus is a condition characterized by abnormal accumulation of cerebrospinal fluid (CSF) in the brain cavities which give rise to increased intracranial pressure inside the skull and they cause increased fetal head (Mahanta *et al*., 2017). Mainly two types of hydrocephalic conditions are seen viz. external hydrocephalus (a collection of fluid outside the brain) and internal hydrocephalus a collection of fluid in the cerebral ventricle (Robert, 1971). Internal hydrocephalic is a condition most commonly seen in animals (Jubb *et al.*, 1993). The conditions are commonly seen in pigs, cows but rarely in sheep and goats. Dystocia in Osmanabadi goats is due to hydrocephalic twin fetuses.

CASE HISTORY AND OBSERVATIONS

A four-year-old Osmanabadi goat was present at late evening hours in the Obstetrical ward, Veterinary Clinical Complex, College of Veterinary and Animal Sciences, Udgir with history of failure of kidding process even if parturient symptoms visible in the last 12 hours before reporting as reddish vaginal discharge and frequently straining. Gynaeco-clinical examinations revealed abnormal fetal conditions. Fetuseswere obstructed in the pelvic cavity of the dam.

TREATMENT AND DISCUSSION

After the diagnosis, Goat put on the hydraulic table in lateral recumbency and applied the ample amount of Carboxymethyl cellulose sodium to the genital passage. Manually, the fluid filled hydrocephalus region of the fetus was punctured by a sharp needle which helped to remove the fluid and also it has reduced the size of the head region of the fetus. Gentle traction was applied to remove both fetuses (Fig 1 & 2). The Twin fetus includes a male and female fetus, both fetuses were dead. Male kid was smaller

*Corresponding author.
E-mail address: anirup.patil960@gmail.com (Anil Dinkarrao Patil)
Received 06.05.2024; Accepted 12.09.2024

in size and skull bone was absent, eye orbits larger, upper surface of skull region was hydrocephalic condition which filled with fluid and fetal legs were found to be stretched and contracted. Female kid was observed large in size and skull filled with fluid but skull bones were absent, large facial cavity, normal ears and contracted fetal limbs. Both fetuses had normal vertebral column in thoracic and lumbar region.

Fig. 1: Goat along with the fetuses

Fig. 2: Hydrocephalus condition in fetuses

After relieving dystocia, the goat was treated with Inj. Ringer's lactate 250 ml, i/v Inj. Dextrose 5% 250 ml i/v, Inj. Intacef-Tazo @10 mg/kg i/v, Inj. Methergin 1ml i/m, Inj. Flunixin @ 1.1 mg/kgi/m. The fluid, antibiotics, analgesics has been continued for four days.

Hydrocephalus condition is caused due to genetic abnormality and Vitamin A deficiency (Roberts 1971, Venkataramana *et al.,* 2017). Infectious agent, dwarfism, hydramnion and copper level in liver also causes hydrocephalic condition in animal (Mahant *et al.*, 2017). Lethal and possibly recessive genes may be associated with cleft palate, hair lip, eye and nose abnormality (Siamese). Divya and Chaithanya (2016) were recorded as a hereditary internal hydrocephalus and retinal dysplasia abnormality in fetus. Smooth and pliable cranial bones in fetal hydrocephalus (Noakes *et al.*, 2010). Similarly, Natkar *et al* (2024) has reported a successful non-surgical management of fetal hydrocephalus with alopecia on the head region in Osmanabadi goat.

CONCLUSION

Hydrocephalic condition in twin fetuses is rarely seen in Osmanabadi goats, per-vaginal examination it can be confirmed and treated successfully to save the fertility of the goat. As genetic factors cannot be nullified but with the use of balanced feed can curb the occurrence of such conditions.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

Divya, V. and Chaithanya, S. C. (2016). Dystocia due to hydrocephalus fetus in a nondescript ewes- A case report. *J. Livestock Sci.*,**7**: 301-330.

Jubb, K.V.E., Kennedy, P.C. and Palmer, N. (1993). *Pathology of Domestic Animals*. Academic Press, SanDiego, California. Pp. 229-230.

Mahanta, N., Acharaya, C., Bhuyan, M., Anup, D., Arunima, D., Das, N., Haque, A. and Bhuyan, D. (2017). Dystocia due to hydrocephalus fetus and its management in a cow. *Inter. J. Chem. Stud.*, **5**:323-324.

Natkar Sonali, Anil D. Patil, Anujkumar Koli, Snehal Ramteke and Ravi Surywanshi (2024). Dystocia due to Foetal Hydrocephalus and Ascites in a Osmanabadi Goat. *Indian J. Anim. Reprod.*, **45** (1): 100-102.

Noakes, D.E., Parkinson, T.J., England, G.C.W. and Arthur, G.H. (2010). *Arthur Veterinary Reproduction and Obstetrics*, 8th edn Pp. 237-238.

Roberts, S.J. (1971). *Veterinary Obstetrics and Genital Diseases*, 2nded. CBS Publishers, New Delhi, India. Pp. 69.

Venkataramana, K., Rathod, S. and Ashokkumar, D. (2017). The chances of dystocia in cows due to hydrocephalus fetus. *The Pharma Inno. J.* **6**: 162-163.