



# Dystocia due to Foetal Hydrocephalus and Ascites in a Osmanabadi Goat

Sonali Natkar, Anil D Patil\*, Anujkumar Koli, Snehal Ramteke and Ravi Surywanshi<sup>1</sup>

Department of Animal Reproduction, Gynaecology and Obstetrics

<sup>1</sup>Department of Veterinary Surgery and Radiology

College of Veterinary and Animal Sciences, MAFSU, Udgir, Maharashtra

## ABSTRACT

A doe with fetal hydrocephalus and ascites doe was treated with obstetrical interventions followed by parenteral supportive therapy.

**Key words:** Ascites, Dystocia, Hydrocephalic, Osmanabadi goat

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## INTRODUCTION

Dropsical fetal conditions like hydrocephalus, ascites, hydrothorax, and anasarca can result in dystocia (Purohit *et al.*, 2012). 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 a noticeable growth of the fetal head (Mahanta *et al.*, 2017). The abnormal buildup of fluid in the cranial cavity causes hydrocephalus. The ventricular system's overflowing fluid is the cause of internal hydrocephalus. Rare cases of external hydrocephalus are caused by an excess of fluid between the dura mater and the brain. Combining internal and external hydrocephalus is possible (Robert, 2004). Excessive fluid in the peritoneal

cavity is referred to as fetal ascites (Noakes *et al.*, 2018). The successful management of dystocia caused by foetal hydrocephalus in accordance with ascites in a goat is the subject of the current case report.

## CASE HISTORY AND OBSERVATIONS

A Osmanabadi doe in its fourth parity was presented to the Obstetrical Ward, Veterinary Clinical Complex, College of Veterinary and Animal Sciences with a history of kidding two live male kids before 48 hours before reporting in the clinic, having continuous straining, vaginal discharge, restlessness, with anorexia and abdominal bloating since night.

\*Corresponding author.

E-mail address: [anilpatil@mafsu.in](mailto:anilpatil@mafsu.in) (Anil Patil)

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Abdominal ballottement revealed that the fetal bones were felt. Vaginal examination revealed that cervix was fully dilated with slightly moist birth canal. The fetus was palpated in anterior longitudinal presentation, dorso-sacral position and head was stuck in the pelvic cavity with flexion of forelimb, fetus head was dorsally bulged with half developed cranium having thin cranial bones that were filled with fluid. Large sized fetus with distended abdomen that fluctuated on pressure during vaginal examination. This was clear that the case of dystocia due to fetal hydrocephalus with ascites. Fetus reflexes were absent.

## TREATMENT AND DISCUSSION

After thorough lubrication with carboxymethylcellulose, a gloved hand was inserted vaginally, the flexion of forelimbs corrected by mutational operation. Due to the severe form of hydrocephalus with ascites that could not be able to relieve by gentle traction, it was decided to reduce the size of head by blindly puncturing the cranial cavity to release watery fluid. Traction was applied on head by inserting finger in eye socket toward the postero-ventral side and dead male fetus was relieved (Fig. 1). After delivery of the fetus, two Nitrofurazone, Urea and Metronidazole bolus was placed in uterine cavity of the doe. Inj. Ringer's Lactate @ 250 ml i/v, Inj. Dextrose 5% @ 500 ml i/v, inj. Chlorpheniramine maleate @ 2ml i/m, Inj. Ceftriaxone and Tazobactam @ 500 mg i/v, Inj. Melonex @ 2 ml i/m, Inj. Tribivet @ 2 ml i/m, for three days. Bol. Utrovet @ ½ twice a daily for 5 days. Animal was recovered uneventfully.

In the present case the condition was grossly diagnosed as hydrocephalus with ascites as gross examination of fetus revealed that the fetus head appears as a flaccid liquid filled sac covered with thin skin having alopecia on head region, cranial bones were thin (Fig. 2). X-ray find-

ing was observed that the excessive fluid in the peritoneal cavity (Fig. 3). Fetal hepatic lesions, general venous congestion, or urinary obstruction with or without bladder rupture in the neonate could all reasons of ascites (Noakes et al., 2018).

Conjoined twins, Schistosomus reflexus, Perosomuse lumbis, hydrocephalus, fetal anasarca, fetal ascites, and achondroplastic monsters are a few examples of the different kinds of monsters and congenital abnormalities in farm animals that have been documented in literature (Noakes et al., 2018). Ascites can also occur due to reduced urinary excretion, Moreover the obstruction of the lymphatic may prevent the disposal of peritoneal fluid and lead to fetal ascites (Singh et al., 2020). Congenital hydrocephalus may lead to dystocia in domestic animals at the time of parturition including Goat (Reddy et al., 2020), Cattle (Chaudhari et al., 2020), Buffalo (Sharma et al., 2015), Mare (Singh et al., 2013) include the other species. Causative factors for the hydrocephalus due to autosomal recessive genes (Roberts, 2004; Murali et al., 2020), or occur due to hypovitaminosis-A (Venkataramana et al., 2017; Bhardwaj and Sheetal, 2020). Other possible causes of acquired hydrocephalus include infection, trauma, and dietary factors (Saini et al., 2019). The hydrocephalus condition has no effect on foetal growth, although it could cause death of the fetus at birth or shortly after, also in buffalo alopecia of the head region was evident (Purohit et al., 2012).

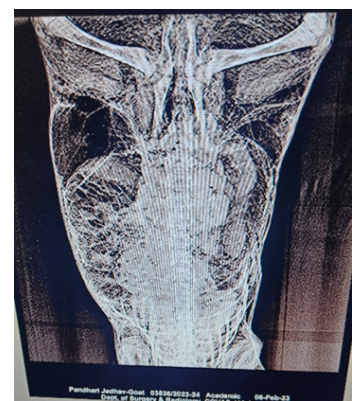
In present case, there was no previous history of dystocia due to fetal hydrocephalus with ascites means this condition not due to congenital or autosomal recessive genes and kidding two live male healthy kids before 48 hours therefore this condition may not be the caused by infection. For that reason present hydrocephalus condition appeared to be most likely caused by a vitamin A deficiency to the third kid cause hydrocephalus fetus including ascites.



**Fig. 1:** Foetal Hydrocephalus with ascites



**Fig. 2:** Hydrocephalic head having alopecia



**Fig. 3:** Excessive fluid in the peritoneal cavity of fetus (X-ray)

## CONCLUSION

The present case report is a rare case of dystocia due to fetal hydrocephalus with alopecia on the head region. Fetal ascites was observed in a Osmanabadi goat and its successfully managed vaginal delivery by puncturing the cranium for reducing the size of head region followed by applied gentle traction.

## CONFLICT OF INTEREST

None

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