

CASE REPORT

Obstetrical Management of Hydrocephalic Fetal Monster in a Tharparker Cow: A Case Report

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Hydrocephalus condition is described either as an external or an internal. In the external hydrocephalus (Vidya Sagar *et al.*, 2010), fluid accumulates in the subarachnoid space exterior to the brain, whereas in the internal hydrocephalus fluid accumulates in the ventricles of the brain. There are several forms of congenital deformity in the bovine fetus. Among them, congenital hydrocephalus has been described in cattle (Purohit *et al.*, 2006; Dar *et al.*, 2012; Ravikumar *et al.*, 2013; Tripathi *et al.*, 2014; Prakash *et al.*, 2016; Megahed, 2017; Chhetri *et al.*, 2018) and buffalo (Salunke *et al.*, 2001; Kumaresan *et al.*, 2003; Pandey *et al.*, 2010). The diagnosis of the condition is easy if the fetus is in an anterior presentation. In fetuses with very large heads, puncture of the head with a trochar is advocated to relieve dystocia, along with routine obstetric maneuvers (Salunke *et al.*, 2001) Sometimes, the calf may be born normally (Vidya Sagar *et al.*, 2010) or by cesarean section when required (Kumaresan *et al.*, 2003; Megahed, 2017). This paper aims to report a case of fetal hydrocephalus delivered per vaginally after obstetrical management in a Tharparker cow.

CASE HISTORY AND CLINICAL OBSERVATIONS

A Tharparker cow in her fourth parity with complete gestation period was brought to the clinics of the Department of Veterinary Gynaecology and Obstetrics of the College at Bikaner with a history of continuous straining since yesterday evening. The clinical parameters (temperature, pulse, heart rate) were within the normal range. Caudal epidural anesthesia was given using lignocaine hydrochloride 2%, and the birth canal was lubricated with liquid paraffin. Per-vaginal examination revealed a dilated birth canal with a fetus in anterior presentation, a dorso-sacral position with the large swollen head in the birth canal, and both forelimbs flexed beneath the body. Fetal movements and reflexes were absent. On the basis of clinical observations, the case was diagnosed as dystocia due to fetal hydrocephalus tentatively, which could be confirmed after delivery of the fetus.

TREATMENT AND DISCUSSION

With the help of finger fetotome, an incision was given on backside of the head and some part of the fluid was

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drained. Both the flexed forelimbs were corrected and the dead fetus was relived (Figure 1). Post handling care included administration of broad-spectrum anti-biotic, anti-inflammatory, anti-histamines, and ecbolic drugs along with vitamin supplementation and intrauterine pessaries.

Hydrocephalus is a dropsical condition that includes accumulation of fluid as a result of an imbalance between the formation and drainage of cerebrospinal fluid (CSF) either in the ventricular system or subarachnoid space which is



Figure 1: Hydrocephalic fetus of Tharparker cow

characterized by marked enlargement of cranium (Noakes *et al.*, 2009). Factors responsible for this condition include congenital, nutritional, or infectious in origin. The condition results in dystocia and the fetuses are delivered by either excision of the head followed by traction (Ravikumar *et al.*, 2013; Tripathi *et al.*, 2014) or cesarean section in an enlarged fetus or hydrocephalus condition with deformities of fetus (Purohit *et al.*, 2012; Megahed, 2017). In the light of above reports, the present case was diagnosed as hydrocephalus, and it was successfully removed per vaginal by draining the cerebrospinal fluid, mutation, and gentle traction.

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