

MANAGEMENT OF DYSTOCIA DUE TO FETAL ASCITES IN A SHE-BUFFALO (*BUBALUS BUBALIS*): A CASE REPORT

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ABSTRACT

The present communication reports a rare case of dystocia in a four year old she-buffalo due to fetal ascites with posterior presentation, relieved by abdominocentesis and forced extraction at veterinary clinical complex, Kumarganj, Faizabad, UP. The cow had an uneventful recovery.

Keywords: *Bubalus bubalis*, fetal ascites, dystocia, posterior presentation, buffaloes

INTRODUCTION

Excessive accumulation of water (or fluid) in the interstitial tissue spaces or body cavities is termed oedema or dropsy (Vegad, 2002). Dropsy of fetal head (hydrocephalus), fetal peritoneum (hydroperitoneum or ascites), and fetal subcutaneous tissues (anasarca) causes dystocia due to increased diameter of fetus (Noakes *et al.*, 2009). Dystocia due to fetal ascites and anasarca are comparatively rare. Anasarca has been observed in the foal, calf and kid; and ascites chiefly in the calf (Roberts, 1971; Craig, 2000). Fetal ascites has been associated with both infectious and noninfectious

fetal pathology (Younquist and Threlfall, 2007). The causes of fetal ascites are numerous *viz.* overproduction or insufficient drainage of peritoneal fluid (Sloss and Dufty, 1980; Sheetal *et al.*, 2017), obstruction of lymphatics may prevent disposal of peritoneal liquid (Sloss and Dufty, 1980) or diminished urinary excretion of water (Jubb and Kennedy, 1970). Although the ascitic fetus is usually fairly small but due to distended fetal abdomen which fluctuate on pressure (Anusha and Mouli Krishna, 2017); it become wedged in the pelvic inlet (Singh *et al.*, 2010) and likely pose the problem for obstetrician as it is often impossible to palpate the whole structure per-vaginum (Singh *et al.*, 2007). Fetal ascites in full term pregnancy may cause dystocia due to increased fetal bulk in cows (Krisnakumar *et al.*, 2012) but the condition is rarely reported in buffalo (Sheetal *et al.*, 2017; Sathya *et al.*, 2018). In case of mild disproportion of calf vaginal delivery may be possible by force extraction after generous use of lubricant. If access to the fetal abdomen is possible through vagina it may be drained using a scalpel blade or catheter to release abnormal fluid, with resultant reduction of fetal abdominal bulk and vaginal delivery by traction, however in occasional cases cesarean section may be required (Jackson, 2004). Thus, a

case of dystocia due to fetal ascites in she-buffalo is reported.

HISTORY AND CLINICAL OBSERVATION

A four year old she buffalo was presented at veterinary clinical complex, College of Veterinary Science and Animal Husbandry, Narendra Deva University of Agriculture and Technology, Kumarganj, Faizabad with history that animal was pregnant with a gestation length nine and half month, straining since last 12 h after rupture of water bag without showing any progress in parturition. Clinical examination revealed normal temperature, slightly increased heart rate, pulse rate and labored breathing. Trans-vaginal palpation divulged fully dilated cervix, two limbs extended into birth canal, distended fetal abdomen, which fluctuate on pressure above the pelvic brim and tense with huge amount of fluid. However, head was not palpable and limb joints

were not movable due to rigidity of the limb, pose difficulty to determine fetal presentation, but again on careful examination, tail was found and brought outside vagina. Thus, on the basis of history and clinical examination the case was diagnosed as fetal ascites (Figure 1) with fetus in posterior longitudinal presentation, right dorsoilial position with hind limb extended through birth canal.

TREATMENT AND DISCUSSION

After proper restraining of animal, the fetal abdomen was accessed per vaginally, punctured carefully by using scalpel blade and immediately after puncture approximately 50 liters straw colored fluid escaped out and results in subsequent reduction of fetal bulk. Thence dead female fetus delivered per vaginum by force extraction and fetal membranes removed manually following delivery of fetus. Post obstetrically the dam was administered with inj. Oxytocin 20 IU by intravenous route once, inj. ceftriaxone 3 g and inj.



Figure.1. Photograph showing fetal ascites in a she buffalo.

meloxicam 15 ml by intramuscular route for five consecutive days. The dam recovered uneventfully.

In buffalo incidence of dystocia due to fetal ascites is 6.9% out of an overall incidence of 22.41% due to fetal oversize (Srinivas *et al.*, 2007). The causes for fetal ascites are not completely ascertained but are usually ascribed to hereditary predisposition, uterine dropsy, mesothelioma of fetal abdomen and brucellosis (Roberts, 1971); derangement of fetal circulation and uterine diseases (Sane *et al.*, 1994); overproduction or insufficient drainage of peritoneal fluid and placental dysfunction (Selvaraju *et al.*, 2009), obstruction of lymphatics (Sloss and Dufty, 1980); hepatic lesions, general venous congestion and urinary obstruction with or without rupture of bladder (Arthur *et al.*, 1996), cystic kidneys with diminished urinary excretion (Jubb and Kennedy, 1970; Purohit *et al.*, 2012), renal retention of salt and water due to renal diseases (Sathya *et al.*, 2018).

Fetal ascites with anterior presentation (Palanisamy *et al.*, 2007) and posterior presentation (Prasad *et al.*, 2011) was reported in buffalo and posterior presentation in Holstein Frisian cow (Kumaresan *et al.*, 2013).

In the present case, following a correct diagnosis, dystocia due to fetal ascites was relieved by reducing fetal bulk and force extraction, which avoid stress and postoperative complications of cesarean section to the dam and economic loss to the farmer. Moreover, future fertility is better as compared to laparohysterotomy. Dam was recovered without any untoward effect. Hence, it can be concluded that dystocia due to fetal ascites can be well managed by fetal abdominocentesis and forced extraction.

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