

## MANAGEMENT OF DYSTOCIA DUE TO FETAL ASCITES IN HOLSTEIN FRIESIAN CROSS BREED COW - CASE REPORT

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**Abstract:** A six year old pluriparous Holstein Friesian cross breed cow presented with history of ruptured water bag and straining since 2 hrs. The cow was examined per vaginum under epidural anesthesia (2% lignocaine hydrochloride) revealed that dead fetus with abdominal distension associated with fluid accumulation was palpable. Fetus in posterior presentation, dorso sacral position. Small abdominal incision on fetal abdomen with fetotomy knife resulted in escape of yellowish serous exudates. Both hind limbs brought in birth canal and dead fetus was delivered by manual traction. The cow treated with antibiotics, NSAID and fluid therapy for two consecutive days.

**Keywords:** HF cross bred cow, dead fetus, abdominal distension, manual traction.

### 1. INTRODUCTION

Ascites (“water belly”) is the dropsy of peritoneum. There are several types of fetal dropsy viz., hydrocephalus, hydro thorax, ascites, anasarca (Noakes *et al.*, 2009). These cause dystocia due to increased diameter of the fetus. Foetal ascites is seen as an occasional cause of dystocia in many species but occurs most often in the cow (Roberts, 1971). Ascites may be caused either by the overproduction or insufficient drainage of peritoneal fluid. Obstruction of the lymphatics, for various reasons may prevent the disposal of peritoneal fluid (Sloss and Duffy, 1980). Ascitic foetus in full term pregnancy may cause dystocia in cows (Rajasundaram *et al.*, 1998). Ascites is dropsy of the peritoneum probably due to diminished urinary excretion (Purohit *et al.*, 2012). The incidence of this condition in buffaloes is rarely reported.

### 2. CASE HISTORY AND CLINICAL OBSERVATIONS

A six year old pluriparous Holstein Friesian cross breed cow in 3rd parity completing normal gestation was presented with history of ruptured water bag and straining since 2 hrs. On examination the Respiratory rate, temperature and pulse rate were normal. The cow was examined per vaginum under epidural anesthesia (2% lignocaine hydrochloride) revealed that dead fetus with abdominal distension associated with fluid accumulation was palpable. Fetus

in posterior presentation, dorso sacral position. By all examination (history and clinical examination), the case was tentatively diagnosed as dystocia due to fetal ascites.

### 3. TREATMENT

Small abdominal incision on fetal abdomen (abdominocentesis) with fetotomy knife, allowing considerable fluid to escape and huge amount (about 25 liters) straw coloured fluid was drained out. Both hind limbs brought in birth canal and dead fetus was delivered by manual traction (Fig.1).



**Fig.1:** Fetal ascites removed by abdominal puncture and traction

Animal was administered fluid therapy (inj. 5% dextrose 1.5 lit. i.v. + inj. Ringer's lactate 1.5 lit. i.v.), NSAID (inj. Meloxicam 0.2 mg/kg of BW), antibiotic (inj. Enrofloxican 2.5 mg/kg of BW), inj. Oxytocin 50 IU i.m and intrauterine boluses were also administered. Cow recovered uneventfully.

### 4. DISCUSSION

Srinivas *et al.* (2007) reported an incidence of dystocia due to fetal ascites is 6.9% (4/13) out of an overall incidence of 22.41% (13/58) due to fetal oversize. The causes for fetal ascites are not definitely known but are usually ascribed to derangement of fetal circulation. It may also be hereditary or due to uterine disease (Sane *et al.*, 1994). Other causes may be overproduction or insufficient removal of peritoneal fluid, renal retention of salt and water due to renal disease.

Fetal ascites have been reported by various authors in cattle (Rajasundaram *et al.*, 1998; Kumaresan *et al.*, 2013 and Ravikumar *et al.*, 2013). Many authors have reported per-vaginal delivery of ascitic fetus where fetus has been presented in posterior presentation (Selvaraju *et al.*, 2009 and Kumaresan *et al.*, 2013). This case report is confirmation with Selvaraju *et al.* (2009) and Kumaresan *et al.* (2013). Arthur *et al.* (1996) stated that ascites may be due to hepatic lesions, general venous congestion or urinary obstruction with or without rupture of bladder. Placental dysfunction consequent to incompatibility of dam and fetus may predispose to fetal dropsy. Ascetic condition in this case may be due to cystic condition of kidney and rupture of urinary bladder or the overproduction or insufficient drainage of peritoneal fluid. The fetal ascites resulted into dystocia as a result of increase in abdominal diameter. Approaches similar to the present case for vaginal fetal delivery have been recorded in many previous studies (Roberts, 1971; Selvaraju *et al.*, 2009; Ravikumar *et al.*, 2013). It was concluded that ascetic fetus can be delivered by abdominal puncture.

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