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## Management of dystocia due to foetal ascites in a crossbred cow: A case report

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### Abstract

The present case reports the management of dystocia due to foetal ascites in a crossbred cow. A 5-year-old cow in second parity was presented at Teaching Veterinary Clinical Complex, Mathura with a history of full-term gestation period and rupture of amniotic sac but animal failed to deliver the fetus. Per vaginal examination revealed a fetus in posterior presentation with an extensively distended abdomen, filled with ascitic fluid and, the case was diagnosed as dystocia due to foetal ascites. Following epidural anesthesia, a stab incision was made in foetal abdomen with fetotome knife. About 20-25 liters of clear pale yellow ascitic fluid was evacuated. After the drainage of fluid, the fetus was delivered with ease by applying traction on hind limbs.

**Keywords:** Cow, dystocia, foetal ascites, fetotome knife

### Introduction

Foetal ascites is seen as an occasional cause of dystocia in many species but occurs most often in the cow<sup>[1]</sup>. Foetal ascites is a dropsical condition where the abdomen of the fetus distends with fluid and cause dystocia. At the end of gestation, an ascitic foetus may cause dystocia in cows<sup>[2]</sup>. The reason for the accumulation of ascitic fluid may be overproduction or insufficient drainage of peritoneal fluid, blockage of lymphatics<sup>[3]</sup>, and reduced urinary excretion<sup>[4]</sup>. The present report records the successful management of foetal ascites in a crossbred cow.

### Case history and observations

A 5-year-old crossbred cattle in second parity was presented at Teaching Veterinary Clinical Complex (TVCC), Mathura with a history of full-term pregnancy and rupture of amniotic bag four hours before presentation. The animal failed to expel the fetus after two hours of rupture of the amniotic bag. Then, the case was attended by a local veterinarian where traction on both the hind limbs failed to deliver the fetus and the case was referred to TVCC. The animal was apparently healthy and clinical parameters including; temperature, heart rate and, respiratory rate were within normal limits. On per vaginal examination, the vaginal mucous membrane was slightly dry and the cervix was fully dilated. The fetus was in the posterior longitudinal presentation, lumbo-sacral position and both hind limbs were within the birth canal. Thorough examination revealed that most of the uterus was occupied by distended abdomen of the fetus leaving a modest space for further exploration.

### Treatment and discussion

Epidural anesthesia was given at sacro-coccygeal space with 4mL Lignocaine (2%) to prevent excessive straining. The animal was restrained in left lateral recumbency. The foetal presentation, position and, posture were posterior longitudinal, dorso-sacral and both hind limbs were extended in the birth canal, respectively. The vagina was lubricated with liquid paraffin and per vaginum, a guided fetotome knife was carefully introduced and, stab incision was made in the inguinal region of the fetus. About 20-25 liters of pale yellow watery ascitic fluid was evacuated (Figure 1). As soon as fluid escaped from the abdomen, gentle traction was applied on hind limbs and a dead female fetus was delivered (Figure 2). The post-obstetrical treatment was done by administration of intravenous fluids (3 liters of Inj. 5% dextrose + 2 liters of Inj. Ringer's lactate), injection Ceftriaxone and Tazobactam 4.5gm I/M BID for five days to prevent secondary bacterial infection, injection Tolfenamic acid 20mL

I/M as an anti-inflammatory drug and repeated once after 48 hrs, injection of Vitamin B complex 10 ml I/M for three days. Uterine ecobolic Exapar liquid (Ayurvet) was recommended orally @ 200ml on the first day followed by 100ml daily for 10 days to facilitate the expulsion of the placenta and evacuation of lochial discharge. The placenta was expelled after 6 hours of foetal extraction and after 10 days of obstetrical manipulation, lochial discharge ceased with no evidence of metritis. The cow recovered uneventfully without any further complications.

Dystocia due to the foetal ascites is most often seen in cattle [5] and has been reported by various authors [6, 7, 8]. The management of dystocia reported here with the fetus in the posterior longitudinal presentation is in agreement with some authors [9, 10]. The use of a fetotome knife for an abdominal puncture to relieve dystocia avoids cesarean section, which prevents economic loss to the owner, stress and, post-operative complications and decrease in future fertility of the animal [11]. The placental dysfunction consequent to the incompatibility of the dam and fetus may cause foetal dropsy [12]. Foetal ascites may also be associated with the dropsical condition of the uterus, mesotheliomas of the foetal abdomen and, brucellosis [13] or due to disturbance in foetal circulation [14]. Ascites may also be due to hepatic lesions, general venous congestion, and urinary obstruction with or without rupture of the bladder or cystic kidneys with diminished urinary excretion [15]. In the present case report, the resolution of dystocia was nearly impossible without drainage of ascitic fluid as agreed in some reports [16] and successful management was done by puncturing the foetal abdomen with the uneventful recovery of the animal.

### Conclusion

The present case documented successful management of dystocia due to foetal ascites in a crossbred cow after draining ascitic fluid by foetal abdomen puncture.

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**Fig 1:** Foetus with Ascites (Site of stab incision in abdomen)



**Fig 2:** The dam and the dead foetus after successful management of dystocia

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