The Pharma Innovation Journal 2023; SP-12(7): 1972-1973

www.ThePharmaJournal.com

The Pharma Innovation

ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; SP-12(7): 1972-1973

www.thepharmajournal.com
Received: 10-05-2023
Accepted: 13-06-2023

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# Case report: Dystocia due to foetal ascites in a Rathi cow

**Pawan Kumar Sharma, Vishal Yadav, LR Yadav, Amit and Shaurabh Daria**

**Abstract**
The present case report is about successful management of dystocia due to foetal ascites in Indigenous cattle. A full-term pregnant pleuriparous Rathi cattle aged about six years was presented having history of dystocia at Veterinary Clinical Complex of Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal sciences, Rajasthan University of Veterinary and Animal science, Bikaner. This animal was having history of expulsion of first water bag and straining from last 7-8 hours but parturition couldn't succeed. As per vaginal examination, abdominal distension was palpated around abdomen and proximal part of limbs and the condition was as fetal ascites. The dead fetus was expelled with slight gentle traction after puncturing of its abdominal wall by Linde's ring knife fetotome. About 8–9-liter clear watery Ascitic fluid was evacuated. Antibiotics, anti-inflammatory, ecbolics drugs were administered and supportive fluid therapy was also given. The animal was recovered uneventfully after five days of follow-up treatment.

**Keywords:** Ascites, dystocia, Indigenous cow, Rathi cow

## Introduction
Dystocia is one of the reproductive problems that occur when the first or second stage of labor is prolonged and assistance is required for delivery (Zaborski *et al*., 2009; Uzamy *et al*., 2010) [19, 18]. Dystocia can have maternal or fetal causes (Purohit *et al*., 2011) [7]. Inadequacy in the pelvis, incomplete dilatation of the cervix, uterine torsion, etc. are examples of maternal cause of dystocia (Purohit *et al*., 2011) [7]. Fetal cause of dystocia includes abonormality in presentation of the foetus, over-size foetus, conjoined foetuses, monsters, fetal maceration and foetal abnormalities like foetal ascites, hydrocephalus and anasarca (Purohit *et al*., 2013) [8]. Obstructions of lymphatics, excessive production or insufficient removal peritoneal fluid, or decreased water excretion in the urine are all possible causes which can also lead to ascites (Jubb and Kennedy, 1970; Sloss and Dufty, 1980; Purohit *et al*., 2012; Sheetal *et al*., 2017) [3, 17, 9, 16]. According to Rajasundaram *et al*. (1998) [10] and Krishna Kumar *et al*. (2012) [4], an ascetic foetus in a full-term pregnancy can lead to dystocia in cows. Fetal ascites is most prevalent in cows in comparison to other species (Roberts, 1971) [13]. According to Honparkhe *et al*. (2003) [2] and Roberts (2004) [12] fetal ascites is associated with dropsical condition, mesotheliomas of the fetal abdomen and brucellosis.

## Case history and clinical management
A full term pregnant pleuriparous Rathi cow aged about six years was presented having history of dystocia at Veterinary Clinical Complex of Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal sciences, Rajasthan University of Veterinary and Animal science, Bikaner. This animal was having history of expulsion of first water bag and straining from last 7-8 hours but parturition couldn't succeed. As per vaginal examination, abdominal distension was palpated around abdomen and proximal part of limbs. Foetus was in posterior presentation, dorso-pubic position and extended hind limbs which were present in birth canal. Per vaginal examination didn't reveal fetal movement. As per the history and clinical examinations of the animal, the condition was as fetal ascites due to which dystocia arised. The fetus was expelled with slight gentle traction after puncturing of its abdominal wall by Linde's ring knife fetotome. About 8–9-liter clear watery Ascitic fluid was evacuated. Dam was administered with d Inj. Ceftiofur 1 gm i/m,Inj. DNS 2 litre i/v, Inj. RL 1 litre i/v, Inj. Calcium borogluconate 350 ml slow i/v, Inj avilin 10 ml i/m,Inj. Dexona 5 ml i/v, Inj. Melonex 10 ml i/m, Bolus Furex 8 boli intra uterine, advised for liquid uterivive 100 ml P.O for 10 days.

**Fig 1:** Delivered Ascitic foetus

## Discussion

Dystocia was caused in this case by foetal ascites. Any species can occasionally have dystocia due to fetal Ascites, however cows are the most commonly affected (Roberts, 1971) [13]. According to Arthur *et al*. (1996) [1], ascites can result from hepatic lesions, general venous congestion, or urinary obstruction with or without bladder rupture. The ascitic fluid can be released by using castrating knife (Roberts, 1971) [13] or the placement of a long obstetrical hook in the umbilicus (Krishnakumar *et al*., 2012) [4]. In several earlier studies, methods for vaginal delivery of ascetic fetus that are comparable to the present case have been documented (Honparkhe *et al*., 2003; Selvaraju *et al*., 2009; Ravikumar *et al*., 2013; Prakash *et al*., 2016; Sathya *et al*., 2018; Kumar *et al*., 2019) [2, 15, 11, 6, 14, 5]. So it is concluded that ascitic fetus can be delivered successfully through vaginal delivery following removal of fluid after abdominal puncture.

## Summary

Dystocia due to fetal ascites was successfully managed in Rathi cattle by puncturing the abdominal wall and it recovered uneventfully.

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