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Dystocia due to fetal ascites in Murrah buffalo: study of two cases

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Abstract

Fetal ascites as a cause of dystocia is a rare condition and relatively reported more in cows than buffaloes. The current study of two cases of dystocia due to fetal ascites in buffaloes and their successful management through per-vaginal delivery by obstetrical maneuvers is reported.

Keywords: buffalo, dystocia, fetal ascites, hydrops

Introduction

Fetal ascites is seen as an occasional cause of dystocia in many species but occurs most often in the cow. It may be caused either by the overproduction or insufficient drainage of fetal peritoneal fluid. Obstruction of the lymphatics, for various reasons may prevent the disposal of peritoneal fluid (Sloss and Duffy, 1980) [12]. Ascites can also occur due to reduced urinary excretion (Purohit *et al.*, 2012) [10]. Feto-maternal disproportion and faulty disposition of fetus has been reported as commonest causes of dystocia in buffalo. Dystocia can also occur due to dropsical condition of fetus like hydrocephalus, ascites, hydrothorax and anasarca (Purohit *et al.*, 2006; Purohit *et al.*, 2012) [9, 10]. However, the report of fetal ascites as a cause of dystocia in buffalo is rare (Luthra *et al.*, 2001) [5].

Case history and observations

Two Murrah buffaloes in their 2nd and 3rd parity were presented with history of complete gestation period, ruptured water bag followed by extended limbs in the birth canal, but both the dams failed to deliver the fetus even after the traction. Per-vaginal examination revealed completely relaxed cervix with dead fetus in posterior longitudinal presentation, dorso-iliac position, with both hind limbs extended in the birth canal in one case and in second case, the dead fetus was in anterior longitudinal presentation, with both fore limbs extended in the birth canal. Further careful examination revealed fetal abdomen filled with fluid suggesting fetal ascites in both the cases. The history revealed that traction was applied in both the cases at field level but failed to deliver the fetus. The general health condition of the dams when presented to the clinics was apparently normal.

Treatment and Discussion

An epidural anesthesia with 6ml of 2% lignocaine HCl was given to each animal to prevent straining. An incision was given on the ventral abdomen of the fetus with a sterile Bard Parker blade to reduce the size and pressure of the fetus in both the cases. After giving incision around excessive amount of brown colored fluid with light blood tinge oozed out through the birth canal. This facilitated lubrication of the birth canal naturally and even reduction in the fetal size. Then, the fetus was delivered successfully by applying guided traction on both the hind limbs in first case (Fig. 1) and on both the fore limbs and head in another case (Fig. 2). The post-operative treatment included Inj. Oxytocin 50 I.U. in 500ml NSS I.V. (Oxystar[®]) once, Inj. Calcium-boro-gluconate 450ml slow I.V. (Mifex[®]) once, Inj. Cefoperazone + sulbactam - 4.5 gm I.M. for 5 days, Inj. Avil 10ml I.M. once daily for 5 days, Inj. Flunixin meglumine 1000 mg I.V. for 5 days and Inj. Intalyte - 3 liters I.V. daily for 3 days and 4 intrauterine Furea[®] boli were kept for two days to each animal.

The foetal ascites is associated with the dropsical condition of the uterus, mesotheliomas of the foetal abdomen and in brucellosis as reported.

Arthur *et al.* (1986)^[2] stated that ascites may be due to fetal hepatic lesions, general venous congestion or urinary obstruction with or without rupture of bladder in the fetus. There are many reports of successful delivery of ascitic fetus per-vaginally with the same approach as discussed in current cases. Fetal ascites with anterior presentation (Palanisamy *et al.*, 2007; Ahuja *et al.*, 2017; Tripathi *et al.*, 2015)^[7, 1, 14] and posterior presentation (Selvaraju *et al.*, 2009; Prasad *et al.*, 2011)^[11, 11] have been reported in buffaloes. Similarly, fetal ascites with anterior presentation (Das and Deka, 2018; Prakash *et al.*, 2016)^[3, 7] and posterior presentation (Kumaresan *et al.*, 2013)^[4] have also been reported in cows. Conclusively, the dystocia due to fetal ascites can be relieved successfully by puncturing the fetal abdomen thereby reducing the diameter of fetal abdomen facilitating per-vaginal delivery.



Fig 1: Ascitic dead fetus in posterior presentation delivered by puncturing the abdomen and traction



Fig 2: Ascitic dead fetus in anterior presentation delivered by puncturing the abdomen and traction

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