

DELIVERY OF ASCITIC BUFFALO FETUS THROUGH ABDOMINAL PUNCTURE OR PARTIAL FETOTOMY

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ABSTRACT

Successful per-vaginum delivery of ascitic buffalo calves by two different methods is reported and discussed. One method is stab incision/puncture of fetal abdomen by fetotomy guarded knife and the other is partial fetotomy. Later appeared to be better than former in relieving the obstetrical condition.

Keywords: *Bubalus bubalis*, buffalo, fetal ascites, buffalo calf, stab incision, partial fetotomy

INTRODUCTION

Fetal ascites is the accumulation of fluid in the peritoneal cavity leading to oversized fetal abdomen thereby causing dystocia. Fetal ascites more often occurs in cattle (Roberts, 1971) and occasionally a cause of dystocia in buffalo (Luthara *et al.*, 2001). To deliver the ascitic buffalo fetus, two different methods i.e. puncture of fetal abdomen and partial fetotomy are discussed and compared in the present article.

CASE HISTORY AND DIAGNOSIS

Two Murrah buffaloes in their second parity, with the history of straining from last 24 h and ruptured water bag 8 to 10 h before were presented at Veterinary Clinics, GADVASU, Ludhiana. These buffaloes were off feed from last two days with normal water intake. Rectal temperature was slightly raised (101.6°F) while other clinical parameters were within normal range. Unsuccessful attempts through traction were made to deliver the dystocia at field level. Critical per-vaginum examination in both the cases revealed both fore limbs secured with ropes were extended in edematous birth passage and fetus in anterior-longitudinal presentation & dorso-sacral position. The fetal abdomen was enlarged with the perception of fluid thrills in it in both the cases suggestive of fetal ascites (Figure 1).

OBSTETRICAL PROCEDURE AND DISCUSSION

Prior to handling, both the buffaloes were administered with dexamethasone, antibiotics, antipyretic, analgesics, antihistamines and supportive medicaments. Straining was ceased

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by infiltrating about 5 ml of 2% Lignocaine hydrochloride as epidural anesthesia in sacro-coccygeal inter-vertebral space. Two different approaches were applied in these two fetal ascitic cases. In one case, the fetal abdomen was punctured blindly by sharp fetotomy guarded knife while in other case fetotomy by Thygesen's fetotome was done at the level of abdomen caudal to last rib of fetus. Following stab incision to fetal abdomen, attempt to evacuate ascitic fluid was made by putting pressure by palm on fetal abdomen thereby resulting evacuation at a slower rate whereas in other case where transverse cut was given on abdomen, fluid immediately evacuated out and didn't require manual pressure.

Extraction of fetus was difficult where guarded knife was used as compared to fetotome method. In the former, difficulty was faced in

incising the abdominal wall and to widen the stab incision with hand or by using eye hook. Further evacuation of ascetic fluid was slowed from incised hole as the incised area might get partially enclosed by uterine wall. Slower evacuation might allowed the synchronous contraction of uterine wall over slowly reducing the size of fetus, making the traction of fetus more difficult. In this method, additional lubrication and maneuvering was required for forced extraction of fetus. On the other hand, in second method, fetotomy of abdomen facilitate rapid evacuation of fetal fluid allowing lesser time for uterus to get contract over fetus, thus making the extraction of fetus easier without any external lubrication. It may also be emphasized that by fetotomy, fetus was delivered in very lesser time (approximately 20 minutes) compared to stab incision (approximately 1 h 30



Figure 1. Fetal ascites causing dystocia in buffalo.

minutes). Fetotomy was suggested as good method to deliver the ascetic fetus. The exact etiology and pathogenesis of fetal ascites is poorly understood but it may be caused either by overproduction or insufficient drainage of peritoneal fluid, caused by any blockade in lymphatics or due to inadequate renal function (Sloss and Duffy, 1980). Ascitic buffalo fetus mostly had posterior presentation (Selvaraju *et al.*, 2009; Singh *et al.*, 2012) and less commonly observed in anterior presentation (Palanisamy *et al.*, 2007). Treatment to relieve the dystocia due to fetal ascites include various approaches *viz.* blind puncture of fetal abdomen (Patil *et al.*, 2009; Prasad *et al.*, 2011; Singh *et al.*, 2012), partial fetotomy (Honparkhe *et al.*, 2003) and caesarean being costly as a last resort (Singh *et al.*, 2010; VidyaSagar *et al.*, 2010). In this study, both buffaloes recovered uneventfully and were discharged in healthy condition along with prescription of supportive medicaments.

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