Case Report

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Fetal Ascites in a Perosomus Elumbis Fetal Monster in a Cross Bred Cow

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ABSTRACT

A 7-year-old crossbred cow was brought to the Referral Veterinary Polyclinic of the Indian Veterinary Research Institute, India, with a history of continuous straining for the past 12 h. Per vaginal examination, the presence of a foetus with severe ascites was revealed. Gross examination confirmed the dead foetus, with the abdominal and thoracic cavities filled with fluid. The condition was successfully managed through obstetrical manipulation.

Introduction

Foetal ascites is considered 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 foetal peritoneal fluid (Singh et al., 2020). This condition may result from various etiologies, including foetal malformations, Dystocia can also occur due to dropsical conditions of the foetus like hydrocephalus, ascites, hydrothorax, and anasarca (Dutt et al., 2021); cardiovascular anomalies; intrauterine infections; or placental insufficiencies (Noakes et al., 2019). The excessive peritoneal fluid can lead to abdominal distension, altered foetal posture, and dystocia due to an increase in foetal size and rigidity (Arthur et al., 2001). From an obstetrical perspective, foetal ascites presents a major challenge during parturition, often necessitating assisted delivery or fetotomy to relieve dystocia (Jackson, 2004).

Case History

A 7-year-old cow in her fourth parity was brought to the Referral Veterinary Polyclinic (RVP) of the Indian Veterinary Research Institute in Izatnagar, Uttar Pradesh, India. She had been 8 months pregnant and leaking blood from her uterus for the previous 12 hours. Eight hours prior to the animal's arrival at the polyclinic, both water bags had been ruptured. Additionally, we noticed that the head and forelimbs were both visible outside the vulva. The owner applied traction, but no progress in foetal delivery was observed.

Clinical findings

When presented, the animal was dull, depressed, and exhausted with a rectal temperature of 101.7°F. A per-vaginal examination was done, which revealed the presence of a dead foetus in anterior longitudinal presentation having excess balloon-like foetal fluid in the abdominal region.

Treatment and discussion

The animal was properly restrained in lateral recumbency, and 2% lignocaine hydrochloride was given as epidural

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anaesthesia. After proper lubrication of the birth canal with a sufficient amount of liquid paraffin, a protected needle (Fig. 2) was passed along with the hand, and the fluid-filled area was punctured to reduce the size of the foetus. After reduction in size of foetus, a long-handled hook was placed into the inner canthus of the eye, obstetrical ropes above the fetlock joint of the foetus were applied, and traction was carried out to extract the dead foetus. After successful extraction, the cow was administered a large amount of fluid (NS-8 liters and RL-8 liters i/v), the antibiotic Amoxirum Forte® (Amoxicillin + Sulbactum - Virbac, India Pvt Ltd.) at 10 mg/kg b.wt., IM BID for 3 days, Melonex Plus® (Meloxicam + Paracetamol - Intas Pharmaceuticals Ltd.) at 0.05 mg/kg b.wt., IM OD for 3 days, and Cleanex® (Nitrofurazone, Povidone Iodine, Metronidazole, Urea – Dosch, India) 4 boli IU OD for 3 days. Gross examination of the fetus revealed it as dead (male); the fetus lacked lumbar vertebrae, the hind limb muscles were atrophied, and the abdominal and thoracic cavities were filled with fluid. The monster had a small, flattened, and deformed pelvis with strongly ankylosed and flexed hindlimbs and atrophy of the muscles of the rear quarter (Roberts, 2004). Gentele and Testoni (2006) also observed that these monsters have underdeveloped musculature of hindquarters accompanied by rigid skeletal support in the lumbosacral region in cattle. Chromosomal aberrations within the homeobox gene family are postulated to be contributory factors in the development of this type of dysorganogenesis (Jones, 1999). Thus, it is concluded that *Perosomus elumbis* is a rare condition that leads to dystocia and can be relieved with proper obstetrical manipulation.

Fig 1. Dead foetal with foetal ascites

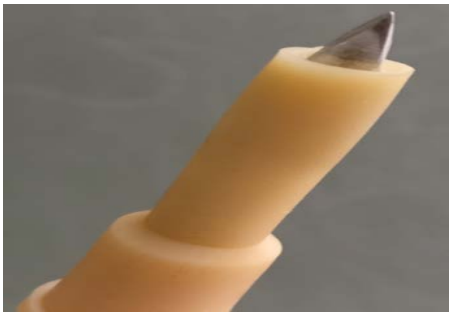

Fig 2. Protected needle used to puncture the fluid filled area per-vaginum.

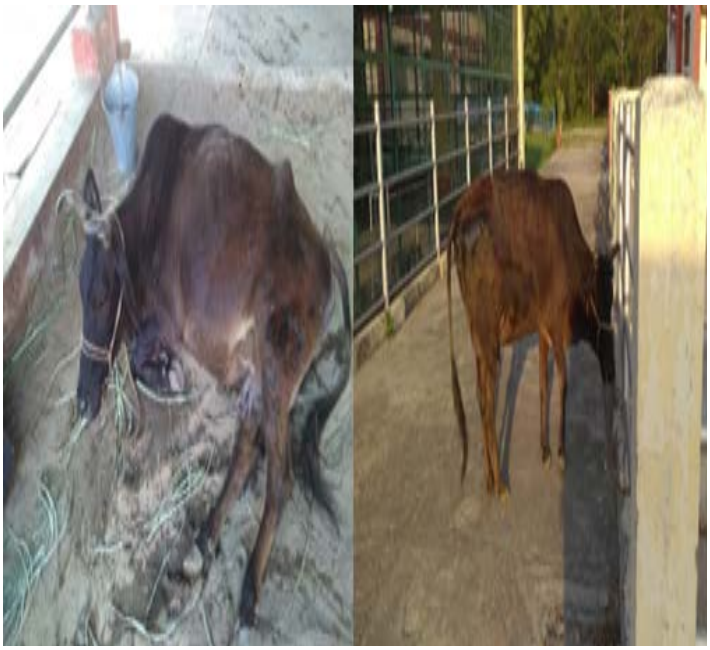

Fig 3. Animal successfully stood up after relief from Dystocia

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