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Successful management of fetal anasarca monster fetus in Marwari goat: A case report

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Abstract

This report documents the dystocia due to fetal anasarca in goat and its successful management through caesarean section.

Keywords: Doe, fetal anasarca, cesarean section

Introduction

Dystocia occurs most commonly due to faulty presentation, position and posture of fetal, along with fetal anomalies and monsters. Fetal monsters arise from adverse factors affecting the fetus in the early stages of its development. The adverse factors are mostly of genetic origin but may also include physical, chemical and viral factors (Jackson, 2004; Chandrasekaran *et al.*, 2015) [1, 2]. Fetal anasarca is the general dropsy of the tissue beneath the skin of fetus and less commonly reported in small ruminants (Prabharan *et al.*, 2016) [3]. Fetal anasarca has been observed mainly in calf, but occasionally in kids and foals (Craig, 2000) [4]. Fetal anasarca cases in goats previously reported by Tamuli *et al.*, 1987; Sharma *et al.*, 2002; Laiju *et al.*, 2012; Jayachandra *et al.*, 2013; Chandrasekaran *et al.*, 2015; Prabakaran *et al.*, 2016; Borakhatariya *et al.*, 2017; Baruti *et al.*, 2018 [2-3, 5-10]. The present case detailed about the successful retrieval of fetus anasarca monster in a Marwari goat through caesarean section.

Case history and observations

A four year Marwari goat in her third parity was presented to Teaching Veterinary Clinical Complex (TVCC), College of Veterinary and Animal Science, RAJUVAS, Bikaner with history of full term gestation, and the parturition started 12 hrs earlier with the rupture of water bag. On clinical examination, animal was restless, eyes mucous membrane was pale, complete cessation of abdominal straining and vulva was swollen. Per vaginal examination revealed presence of large sized disproportionate fetus with an oedematous head of the fetus noticed in the birth canal. The absence of fetal reflexes indicated that the fetus was dead. Further, traction was applied but did not yield therefore; it was decided to perform caesarean section.

Treatment and discussion

Before started C-section, goat was treated with fluid therapy (500ml 5% DNS, 500ml RL and 100 ml Calcium Boro Gluconate), antibiotic (Inj- Mofoi 5ml I/M, Bovion), NASADs (Inj- Megludyne 2ml I/M, Virbac), anti-histaminic (Inj Anistamin 3ml I/M, Intas) and corticosteroids (Inj- Dexamethasone 3ml I/M, Zydus) was given parentally. The doe was restrained in right lateral recumbency and site of incision (left oblique ventro lateral) was prepared. Following the incision of skin, fascia, abdominal muscles, peritoneum was tented and then incised to expose the uterus, which was exteriorized and incised on its greater curvature and the dead fetus was removed (Figure 1). The uterus was lavaged externally with warm saline to remove blood clots and other debris before closing.

The incision site was close as per standard procedures, uterus was closed by no 1 catgut by cushion followed lambert, muscle layer was closed with no 1catgut by ford interlocking suture pattern, and skin was closed by cross matters suture pattern by using nylon. The suture line was dressed with antiseptic and antibiotic, anti-inflammatory, anti-histaminic and supportive treatment was given for five days. The goat was recovered uneventfully.

Roberts (2004) ^[11] stated that foetal anasarca may develop in a single foetus or one of the twins and was due to simple autosomal recessive gene. Rarely mild hydrops of the amnion or allantois and oedema of the placenta may accompany foetal anasarca (Jayachandra *et al.*, 2013) ^[8]. The fluid effusion accumulation in subcutaneous space might be due to lack of lymphnodes and existence of autosomal recessive allele which affect the embryological development of normal lymph nodes (Chandrasekaran *et al.*, 2015; Monteagudo *et al.*, 2002) ^[2, 12].

Dead kid showed enormous fluctuating swelling of all four legs. Further, head has a disproportionate conformation just like a bull dog appearance with short stumpy neck (Long, 1996) ^[13] (Figure 1). A fetus with anasarca may be prone to dystocia because the generalized edema will cause the fetus not to pass through the pelvic canal (Noakes *et al.*, 2001) ^[14]. Most anasarca fetuses are expelled dead. When the fetus poses difficulty in its delivery, cuts must be given over many places to release the fluid or fetotomy and/or forced extraction may be used to deliver the fetus. Surgical intervention is usually required for the delivery of oversized anasarca fetus (Kumar *et al.*, 2005) ^[15]. In present case also the dead delivered fetus was edematous with large head and small limbs and gross examination resembles with the cases of fetal anasarca (Figure 1) and extracted after cesarean section.



Fig 1: Anasarca fetus of goat

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