



Dystocia due to Foetal Anasarca and Ascites in Does: Study of Two Cases

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ABSTRACT

The present case study puts on record for two cases of dystocia due to foetal anasarca and foetal ascites in seven years and 4-year-old multiparous non-descript does and their management by caesarean section and per vaginam through traction, respectively.

Introduction

Dystocia is one of the major contributory factors in economic losses in goat farming which result in death of either foetus or dam (Borakhatariya et al., 2017). Foetal monsters arise from adverse factors affecting the foetus in the early stage of its development. The adverse factors affecting are mostly of genetic origin but may also include physical, chemical and viral factors (Jackson, 2004; Chandrashekar et al., 2015). Foetal monsters may be relatively oversized and result in dystocia and less common cause of foetal oversize includes foetal anasarca and foetal hydrops (Purohit, 2006). Foetal anasarca is characterized by wide-spread swelling of skin due to subcutaneous and inter-muscular accumulation of fluid in muscle, umbilicus, and legs resulted in the formation of generalized edema (Roberts, 1986). Foetal anasarca has been observed mainly in the calf, but occasionally in kids and foals (Craig, 2000). The present manuscript discusses about a case of dystocia

due to foetal anasarca and ascites in two different doe and its successful management.

Case history and observation

Two different cases of dystocia in doe were presented at different days in Obstetrical unit of Teaching Veterinary Clinical Complex (TVCC), College of Veterinary and Animal Science, Parbhani.

Case1: A seven years old multiparous ND doe with full term gestation with a history of one live foetus delivered per-vaginam and another was stuck in the passage and unable to deliver even after continuous straining for two to three hours. The doe was earlier attended by local quack. On clinical examination the rectal temperature was normal, 101.8 °F, slight increase in heart rate, 82 beats/min, vulva was swollen and the foetal head was amputated at the base of neck by a local quack in an attempt to relieve

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dystocia. Per vaginal examination revealed dilated cervix and the presence of very large oedematous and disproportionate foetus lodged in the pelvic inlet in anterior longitudinal presentation. Attempts were made to deliver the foetus by traction, but could not succeed. Surgical intervention was needed and caesarean section was planned.

Case 2: A four years old ND doe with full term gestation and history of failure of kidding was presented with Teaching Veterinary Clinical Complex. On clinical examination rectal temperature was found, 101.6 ° F, deformed oedematous foetal head clearly seen outside vaginal canal. Dystocia due to foetal ascites was diagnosed by per-vaginal examination, which revealed large sized fluid filled abdomen that fluctuates on pressure revealed foetal ascites. The foetus was lodged in pelvic inlet in anterior longitudinal presentation, with dorso-sacral position with foetal head resting on forelimbs. It was decided to deliver the foetus by using traction.

Treatment

Case 1: Before starting C-section, the doe was administered with fluid therapy (500 mL RL, 500 mL 5% DNS, 50 mL calcium borogluconate), antibiotic (Inj. Enrofloxacin IM @ 5 mg/Kg b.wt.), non-steroidal anti-inflammatory drugs (NSAID, Inj. Meloxicam IM @ 0.25 mg/ Kg b.wt.), anti-histaminic (Inj. Chlorphenaramine maleate 5 mL IM) and vitamin B-complex (Inj. Tribivet 5 mL IV). The doe was restrained right lateral recumbency and site of incision (left paralumbar fossa) was shaved and prepared aseptically using an antiseptic scrub. Local anaesthetic (Inj. Lignocaine HCl 2%) used for an inverted L - block at the site of incision. Skin was incised on left paralumbar fossa 10-12 cm below transverse process using scalp blade no. 22 mount on Bard Parker surgical blade handle no.3. Following skin incision, using sharp and blunt incision over abdominal muscle and peritoneum to expose the uterus, which was then grasped, exteriorised and incised to remove the dead anasarca foetus (Fig. 1A). The second live foetus was normal. A uterine incision was flushed with normal saline solution and incision of the uterus, peritoneum, abdominal muscles and skin were sutured as described by Kumari and Dutt (2020) in ewes. Post operative treatment- suture dressed daily with povidone iodine solution, fluid therapy (250 mL DNS IV), antibiotic (Inj. Enrofloxacin IM @ 5mg/kg b.wt.), NSAID (Inj. Meloxicam IM @ 0.25 mg/kg b.wt.), vitamin B-complex (Inj. Tribivet 5 mL IM), was carried out for 4 days postoperatively.

Case 2: The doe was restrained on the raised platform in lateral recumbency. The full gloved hand was inserted

into the birth canal to pull the folded fore legs. The cotton rope was tied on fore legs. Using liquid paraffin as a lubricant the dead foetus was pulled out successfully (Fig. 1B). Post procedure treatment, fluid therapy (500 mL 5% DNS, 250 mL RL, 50 mL calcium borogluconate), antibiotic (Inj. Enrofloxacin IM @5 mg/Kg b.wt.), NSAID (Inj. Meloxicam IM @ 0.25 mg/Kg b.wt.), antihistamines (Inj. chlorphenaramine mealate 4 mL IM) and vitamin B-complex (Inj. Tribivet 5 mL IV) was administered. Besides, one Cleanex bolus (Nitrofurazone-60 mg, Metronidazole-100 mg, Urea-6 gm, Povidone iodine-60 mg), placed intra-uterine.

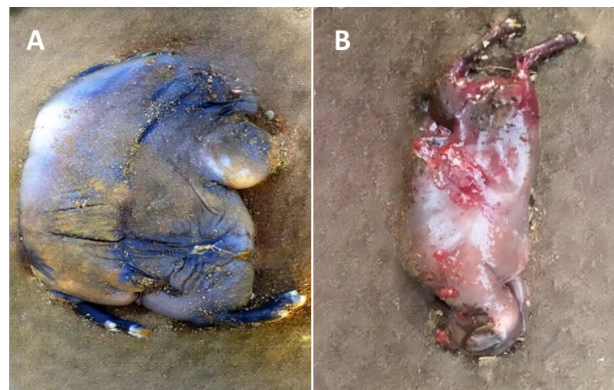


Fig. 1. A. Dead anasarca foetus, B. Dead ascites foetus

Results and discussion

In case-1, the dead foetus (Fig.1A) removed by C-section was anasarca, flabby with poor bone development, body structures not clearly remarkable and having a body weight three times more than normal live foetus. The live foetus delivered had normal body weight and having normal body structures. In case-2, only one foetus was delivered by traction which was dead, ascites, but small size as compared to the dead foetus of case-1.

Foetal anasarca is more common in bovines, but rare in other domestic animals (Velankar and Deopukar, 1994). The definitive cause of foetal anasarca is unknown and may be associated with achondroplasia or bulldog calves or lymphoid tissue agenesis possibly due to existence of autosomal recessive gene defect (Long, 1996; Monteagodu et al., 2002). Moreover, the obstruction of lymphatic may prevent the disposal of peritoneal fluid and lead to foetal anasarca (Sloss and Duffy, 1986). Foetal anasarca may develop in single foetus or one of the twins (Roberts, 2004)). In present case, the concurrent live foetus was also delivered per-vaginum and presence of this normal foetus would have helped in maintaining the pregnancy in spite of foetal anomalies as observed by (Prabharan et al., 2016). A foetus with anasarca may be prone to dystocia because the generalized oedema will cause foetus not to pass through pelvic

canal (Noakes et al., 2001). Therefore, surgical intervention is usually required for the delivery of oversize anasarca foetus (Kumar et al., 2005).

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Conflict of interest

None

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