DYSTOCIA DUE TO FETAL ANASARCA FOETUS ALONG WITH NORMAL FOETUS AND ITS SUCCESSFUL SURGICAL MANAGEMENT IN A GOAT – A CASE REPORT

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ABSTRACT

A 5-year-old female non-descript goat was presented to Referral Veterinary Polyclinic, ICAR-Indian Veterinary Research Institute in Bareilly, with signs of anorexia, restlessness and severe straining. The first water bag was reportedly observed externally two hours before the presentation of the animal to the clinic. On per-vaginal examination the foetus was oedematous and bloated with no suckling and corneal reflexes. The condition was diagnosed as foetal anasarca through the per-vaginal examination and could not be removed per vaginally by traction. The condition was managed successfully by surgical intervention and the animal had an uneventful recovery.

KEYWORDS: *Goat, Anasarca, Foetus, Dystocia,reflex*

INTRODUCTION

Dystocia is more commonly found in cattle and sheep as compared to goats (Hanie, 2006). Anasarca is the generalised oedematous condition of the body and it is rarely reported in small ruminants (Prabharan *et al.*, 2016). The foetus with anasarca is carried to term, however the primary issue is with the lack of progress in second-stage labor. The reason might be due to the large increase in the foetal volume caused by the excess accumulation of fluid in the subcutaneous tissues especially in the head and hind limb. Foetal monsters commonly arise due to the adverse factors affecting the foetus in early stages of development (Kumar *et al*., 2020). The adverse factors are mostly genetic but also include physical, chemical and viral agents (Chandrasekaran *et al.,* 2015). The knowledge about the various types of monsters in animals which usually cause dystocia, and cannot be easily delivered require a caesarean section or a foetotomy most of the time (Sharma, 2006).

CASE HISTORY AND OBSERVATIONS

A 5-year-old non-descript goat was presented at Referral Veterinary Polyclinic, ICAR-Indian Veterinary Research Institute in Bareilly with history anorexia for five days. The owner reported observance of water bag two hours prior to presenting in the clinic animal and failed to expel the foetus. The general physical examination of the animal showed body temperature of 38.5^{0}C, normal heart beat and respiratory rate and moderate dehydration. The external genitalia of vaginal mucous membrane revealed moderate oedema which probably resulted due to manipulation by goat owner during handling dystocia. Per-vaginal examination revealed fully dilated cervix and on further examination the entire foetus was fully filled with water. The dead fetus had anterior presentation with dorso-sacral position with both anterior limbs extending into the pelvic cavity. The foetus was lodged in the pelvic cavity and digital palpation revealed fluid filled structure and comparable swelling on anterior part of foetus especially head region. The suckling and corneal reflex were absent. Finally, the swelling of the mass on the head region of the foetus and entire surface of the body postulated the dead fetus as an anasarca. Since it was almost impossible to relieve the condition by traction because of anasarca foetus coupled with moderate dehydration and loss of blood of the doe, caesarean section was opted.

Fig. 1 Doe with severely extended abdomen

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Fig. 2 Water bag

TREATMENT

Prepared the left flank region aseptically for surgery. Stabilized the animal with fluids, antibiotic and analgesic prior to surgery. Positioned the animal in right lateral recumbency and injected the animal with 2% lignocaine hydrochloride epidurally and also as local anaesthetic on the left flank region. A horizontal incision on the left flank was made and exteriorized the uterus after following incision of the fascia, abdominal muscles and peritoneum. Later an incision on the greater curvature of the uterus was made and removed two dead foetuses along with foetal membrane. On gross examination of the foetuses revealed that one fetus was normal and other one was fully oedematous. The uterus and abdominal cavity were lavaged with normal saline to remove the clots and debris. The incision of the uterus was closed with cushing followed by lambert suture pattern using catgut size 1. Abdominal muscles and skin incision was opposed by the simple interrupted suture as per the standardthe simple interrupted suture as per the standard procedure. Morphological appearance of the oedematous foetus was totally different from normal kid. The head was fully swollen and the oedema masked the normal features of the face. The affected foetus had short legs with distention of abdomen and thigh regions.

Fig. 3 Foetal anasarca along with normal foetus

Fig. 4 Uterine closure

Fig. 5 Apposed skin

Fig. 6 Animal after surgery

Postoperatively animal was treated with antibiotic, anti-inflammatory, B-complex injections for seven days and analgesic for three days. Tetanus toxoid was administered immediately after surgery. Animal had an uneventful recovery.

DISCUSSION

Dystocia in farm animals is one of the etiology of the economic loss to the farmers due to the loss of the dam and foetuses (Brounts *et al.,* 2004). Twinning in primiparous does is a common cause of dystocia (Jayachandra *et al.,* 2013). In foetal anasarca condition large amount of fluid get accumulated under the skin and subcutaneous tissue of the foetus and it may lead to serious birth problems (Jackson, 2004). According to Ali, among 2011 dystocia of goat's foetal oversize and monsters amounts to 3.2 and 1.4%, respectively. Foetal anasarca mainly reported in calf and occasionally in kids and foals (Craig, 2000) and rarely reported in buffalo (Devanathan *et al*., 1990). It may develop in a single or one of the twins (Roberts, 1982). Baruti *et al*., (2018) reported a case of foetal anasarca in an Assam hill goat and removed the dead foetus per vaginally with proper lubrication.

Ramsingh *et al*., (2017) reported that the per-vaginal examination of the goat with foetal anasarca felt a doughy consistency of the foetal skin and depression upon the finger pressure. The foetus can be taken out either per-vaginally or through C- section depending on the severity of the condition. Bulldog monster with anasarca condition is successfully relieved per-vaginally as reported by Reddy *et al*., (2017), but surgical delivery is needed for most of the cases for the delivery of oversized anasarca's foetuses (Kumar *et al.,* 2005). The foetus with anasarca is mostly prone to dystocia due to the generalized oedema as it causes the obstruction of the fetus through the pelvic canal (Noakes *et al*., 2001). The head of the anasarca fetus was swollen masking the normal features of the head (Borakhatariya, *et al*., 2017). Foetal causes of dystocia are more common than the maternal cause in goats (Abdul- Rahman *et al.,* 2000).

CONCLUSION

Dystocia should be considered as an emergency condition in ruminants that requires immediate intervention. The stage of the clinical presentation and condition of the animal is important in deciding the prognosis. Since the condition is having multifactorial etiology *i.e*. nutritional, physiological, and genetic factors, the treatment should be directed to resolve all these factors. Furthermore, the dystocia in goat due to congenital anomalies like anasarca is not a specific and common condition in goat but has potential complication for dam.

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