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## Correction of dystocia in goat due to bilateral shoulder flexion of dead emphysematous fetus

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#### Abstract

A one and half year-old full-term pregnant goat of local non-descript breed suffering with difficult in birth for 5 hours was presented as an emergency case. Intravaginal examination of goat revealed the dead fetus with bilateral shoulder flexion and nape posture. Correction of dystocia was undertaken by mutation operations, decapitation and traction. The dead fetus was successfully taken out. The case was followed for five days and treated with antibiotic and analgesic. Uneventful recovery of animal was observed.

**Keywords:** dystocia, emphysematous fetus, goat

#### Introduction

Incidence of dystocia in small ruminants is comparatively lower (<5%) than large ruminants and appears to be higher in goats than sheep (Sharma *et al.*, 1999; Brounts *et al.*, 2004; Bhattacharyya *et al.*, 2015) [8, 4, 3]. The incidence of dystocia in goat has been reported to be 7% (Abdul-Rahman *et al.*, 2000) with more incidences in dam carrying male and single fetus (Majeed *et al.* 1994; Echternkamp and Gregory, 1999) [6, 5]. The causes for dystocia can be classified into two; maternal and fetal causes. The maternal causes of dystocia are uterine inertia, failure of abdominal expulsive forces, obstruction of the birth canal, uterine torsion, uterine rupture and deviation of the uterus. The fetal causes are fetal maldisposition, fetal abnormalities, and fetal oversize (Purohit *et al.*, 2006) [7]. In goats, 44.44% of dystocia are due to fetal causes (Anusha *et al.*, 2016) [2]. The most common causes for dystocia occurrences are failure of cervical canal to open followed by uterine inertia and fetal mal-dispositions like lateral or downward deviation of head and carpal or shoulder flexions. Correction of dystocia in goats can be done by mutation and cesarean procedures, however, only partial subcutaneous fetotomy is possible. Moreover, the correction of maldisposed fetus by forceful traction results in the uterine rupture and subsequent prolapse because of very fragile nature of birth canal (Jackson, 1995) [7]. Hence, care must be taken in goats during correction of dystocia by mutation operations. In this communication, a case of dystocia due to bilateral shoulder flexion and nape posture of dead emphysematous fetus and its successful correction is reported.

#### Case history and clinical observation

A case of 1.5-year-old female nondescript goat weighing about 20 kg with the history of rupture of amniotic sac 5 hours earlier and straining without expulsion of fetus was presented as emergency case in field. Physical examination revealed dehydrated pale mucous membrane, hypothermia (37.7 °C) and tachycardia (98 bpm). The goat was seen exhausted and dull on lateral recumbent position. Examination of external genitalia showed amniotic discharge from the vulva and no evidence of fetal membranes or fetal parts. Per vaginal examination revealed fetus was in anterior longitudinal presentation, dorso-sacral position and downward deviation of head (nape posture) and bilateral shoulder flexion. The fetus was already dead and emphysematous and there was no fetal reflex observed.

#### Treatment and discussion

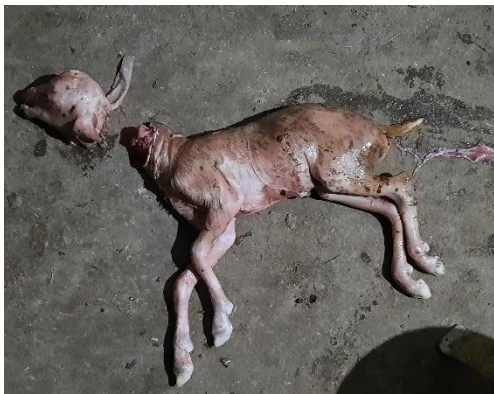
The treatment was commenced with 0.5 ml of 2% lignocaine hydrochloride for epidural anesthesia and antihistaminic therapy with chlorpheniramine maleate (2ml IM). The birth canal was thoroughly lubricated with non-irritant oil. The fetus was pushed inside the abdominal cavity by gentle repulsion and the nape posture of head was corrected by lifting the head that was deviated downward. However, the delivery of entire fetus became difficult as there was insufficient space to correct the shoulder flexion.

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Therefore, by traction, the head of the fetus was taken out through the vulva and decapitation was performed outside the vagina. The decapitated fetus was pushed half inside the vagina to create enough space to correct the shoulder flexion. The care was taken to avoid the damage to birth canal by the exposed bony parts of decapitated fetus. The flexed forelimbs were corrected one by one, and the fetus was pulled out by traction (Fig 1). Fetal remnants were removed manually and intrauterine bolus (Furex bolus) was kept inside the uterus. Doe was treated with fluid therapy by infusing 5% DNS (300 ml) and Calcium Borogluconate (100 ml) in i/v. Antibiotic (Ceftriaxone - 10 mg/kg body weight) and analgesic (Flunixin meglumine - 1.1 mg/kg body weight) were given for 5 days to bypass the post-operative complications. The recovery of doe was evident uneventfully.



**Fig 1:** Decapitated dead emphysematous fetus

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