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Successful management of dystocia due to foetal anasarca in black Bengal goat

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Abstract
Fetal anasarca is characterized by excessive accumulation of fluid in the subcutaneous tissue and body that causes subcutaneous edema of the foetus. A full term multiparous doe was presented with dystocia due to fetal abnormality. Per-vaginal examination revealed that the cervix was fully dilated and the foetus was in posterior longitudinal presentation with both the hind limbs were extended into the vaginal passage. On cesarean section dead foetus was removed which was identified as foetal anasarca.

Keywords: Dystocia, fetal anasarca, doe, caesarean

1. Introduction
Dystocia occurs more frequently in cattle and sheep than goats (Hanie, 2006). Fetal anasarca is general body oedema in which excessive amount of fluid is accumulated beneath the subcutaneous tissue, less commonly reported in small ruminant (Prabharan *et al*., 2016) [11]. Cases of fetal anasarca have been observed commonly in calf, but occasionally in kids and foals (Craig, 2000) [5]. Fetal monsters arise from adverse factors affecting the foetus 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 and Chandrasekaran *et al.*, 2015) [8, 4]. The various types of monsters and congenital abnormalities in farm animals reported in literature include conjoined twins, *Schistosomus reflexus*, perosomus elumbis, hydrocephalus, fetal anasarca, foetal ascites and chondroplastic monsters (Arthur *et al.*, 1996) [1]. 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; Prabaharan *et al.*, 2016; Borakhatariya *et al.*, 2017; Baruti *et al.*, 2018 [15, 14, 10, 9, 4, 11, 3, 2].

2. Case history and clinical observations
A black Bengal goat in her third parity, age about three years was presented at veterinary Clinical Complex of Ranchi Veterinary College B.A.U. Kanka, Ranchi Jharkhand, with history of full term gestation, and the parturition started 6 hrs earlier with the rupture of water bag. The case was treated by local practitioner, but it was futile and referred to VCC. On clinical examination, animal was restless, mucous membrane of eyes was pale, complete cessation of abdominal straining and vulva was swollen. Per-vaginal examination revealed that the cervix was fully dilated and the fetus was in posterior longitudinal presentation with both the hind limbs were extended into the vaginal passage. Further, traction was applied but did not yield therefore; it was decided to perform caesarean section.

3. Treatment and Discussion
Goat was restrained in right lateral recumbency and site of incision was prepared. To avoid hypovolemic shock, intravenous fluid (Dextrose 5%, Normal Saline), antibiotic (Enrofloxacin), dexamethasone was given parentally before making ventro oblique incision on lower left lateral abdominal skin. 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 a edematous dead fetus was removed (Fig. 1). It was identified as foetal anasarca which might be the reason behind dead foetus and dyctocia. The uterus was lavaged externally with warm saline to remove blood clots and other debris before closing. The uterus was sutured with a continuous inverting pattern (Cushing) without full penetration of the muscle layers, using a non-synthetic absorbable suture material (i.e. Catgut) followed by second layer of lambert suture pattern.

The peritoneum and separate muscle layer was closed with no 1catgut by lockstitch suture pattern, and skin was opposed in interrupted horizontal matters suture pattern by using silk. Antiseptic dressing of suture line was done and following treatment with antibiotic and anti-inflammatory for five days. The goat was recovered uneventfully. Anasarca condition is seen commonly in cattle but may affect sheep, (Roberts, 2004) [13], goat (Tamuli *et al*., 1987; Sharma *et al*., 2002; Purohit *et al*., 2006a) [15, 14, 12] and also rarely reported in the buffalo (Devanathan *et al*., 1990) [6]. Most anasarcous fetuses are expelled dead. When the fetus poses difficulty in its delivery, cuts must be given over many places to release the fluid fetotomy and/or forced extraction may be used to deliver the fetus.

Fig 1: Foetal anasarca observed in removed kid

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