CASE REPORT

Surgical Management of Dystocia due to Fetal Monster in Dumba Sheep

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Dystocia refers to a difficult birth characterized by prolonged, unassisted labour or a delivery that requires intervention (Zaborski *et al*., 2009). In small ruminants, dystocia occurs less frequently than in large ruminants, with an incidence of less than 5% (Brounts *et al*., 2004; Bhattacharyya *et al*., 2015). The most common cause of dystocia in a primiparous ewe carrying a single male lamb is feto-maternal disproportion (Jackson, 2004). The relative frequency of the various fetal causes and various types of malpresentation has also been shown to vary between breeds (Dwyer and Bunger, 2012). It typically arises when the first or second stage of parturition is delayed. Most common causes of dystocia are classified in two categories, *viz*., maternal and fetal origin. Fetal dystocia occurs mainly due to faulty disposition (presentation, position, and posture), congenital monsters, and foetal pathological condition like ascites and emphysema. Maternal causes of dystocia mainly include uterine inertia, weak abdominal straining, incomplete dilation or constriction of birth canal and inadequate pelvis (David *et al.,* 2019). Many authors reported that Caesarean section can be considered an effective way for treatment of dystocia in sheep, especially when performed early after the onset of the signs of parturition (Khan *et al.,* 2018; Bruce *et al*., 2021). The present case describes the successful surgical management of dystocia due to foetal monster in a Dumba sheep.

Case History and Observations

A 1.5-year-old Dumba sheep, in its first parity, was presented with a history of full-term gestation. Parturition began 10 h before with the water bag appearing at vulva and sheep was dull, depressed and anorexic. Clinically, animal was having normal rectal temperature and respiration rate, pale mucous membrane and dark brownish vaginal discharge. Fetal head was palpated on floor of pelvic bream with no suckling reflex. In X-ray examination, fetal was present in birth canal with anterior longitudinal presentation and dorso-pubic position with over size of fetus (Fig. 1).

An initial attempt was made to deliver the fetus manually via the vaginal route using 2% lignocaine for epidural anaesthesia to reduce straining. However, due to excessive fetal over size, vaginal delivery was unsuccessful, necessitating a Caesarean section, for which the consent of owner was obtained.

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Treatment and Discussion

Preoperatively, the ewe was given 1 Litre Ringer's lactate and 500 mL dextrose saline (5% w/v) solution to stabilize the condition. The animal was premedicated with ceftriaxone sodium (Intacef, Intas; 10 mg/kg b.wt.) and meloxicam (Melonex®, Intas; 0.5 mg/kg b.wt.) intramuscularly. The site was prepared for aseptic surgery and Caesarean operation was performed through left lower flank oblique celiotomy under local analgesia using 2% lignocaine hydrochloride adopting standard procedure. The uterus was exteriorized and incision was given on caudal aspect of the greater curvature of uterine horn and extended towards the uterine bifurcation to allow removal of dead fetus (Fig. 2). The excessively large dead fetus (13 kg) was then exteriorized by applying traction on the hind limbs (Fig. 3). Excess fetal fluid and detached placenta were also removed manually. Two boli of Cleanex® (Dosch, containing nitrofurazone, metronidazole, urea and, povidone iodine) were placed inside the uterus and the uterus was closed with Lambert's pattern using No. 1-0 chromic catgut in single layer. The abdomen was closed in standard fashion.

Postoperative analgesia was provided by meloxicam (0.5 mg/kg b.wt., i/m, once daily) for 5 days. Ceftriaxone (10 mg/kg b.wt., i/m, twice daily) was administered for 7 days. Daily dressing of the suture line was performed with 5% povidone iodine until healing of the surgical wound. The skin sutures

Fig. 1: Abdominal X-ray of ewe

Fig. 2: Caesarean section

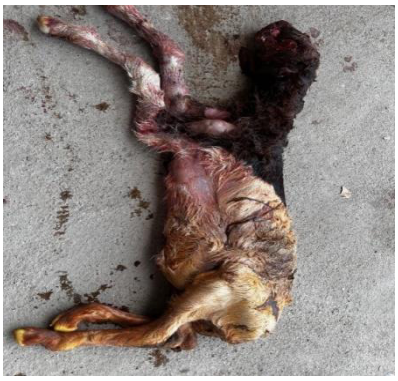

Fig. 3: 13 kg dead lamb

were removed on 15th postoperative day. The animal made an uneventful recovery.

Dystocia or difficulty in parturition is a life threatening condition either of the ewe, lamb(s) or both and great economical loss to the farmer. Non-surgical methods are used when fetal malpositions-like head and neck deviation, bilateral shoulder flexion exist with fully dilated cervix and sufficient space in pelvic cavity is available for manual extraction of normal fetus. Surgically the dam is operated by Caesarean section, when cervix is not completely dilated, much more time has lapsed after initiation of parturition, or excessive over size fetus(s) with no sufficient space in pelvic cavity for manipulation of fetus (Zerihun and Dese, 2022). In the current case, dystocia was relieved surgically where the vaginal delivery of an excessively large dead male monster fetus was not possible and Caesarean section was the only option to manage the case. In terms of gender, ewes carrying male fetus had significantly higher prevalence of dystocia compared to ewes bearing female fetus (Mchugh *et al*., 2016). The primary safe techniques for relieving dystocia involve correction of fetal malpresentations and traction. When non-surgical techniques or manual assistance fail, attention shall be shifted to surgical interventions, particularly Caesarean section.

In summary, the present case of dystocia due to foetal monster in an ewe was successfully managed by a Caesarean section for failure of vaginal delivery due to insufficient space in the pelvic cavity, and oversized dead fetus.

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