Case Report

DYSTOCIA DUE TO FOETAL HYDROCEPHALUS AND PROGNATHISM IN A NON-DESCRIPT DOE

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ABSTRACT

A one year old, non descript doe presented with the history of straining to deliver and hanging of ruptured water bag from the vulva was diagnosed as dystocia. The attempts for manual extraction of foetus were failed and a dead emphysematous male foetus was removed by caesarean section. Hydrocephalus and prognathism were observed in the dead foetus. The doe uneventfully recovered postoperatively.

Keywords: Caesarean section, hydrocephalus, prognathism

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CASE HISTORY AND CLINICAL OBSERVATIONS

A one year old, non descript doe was brought to Veterinary Dispensary, Devakottai with the history of straining to deliver and hanging of ruptured water bag from the vulva for the past 24 hours. The animal was anorexic since the clinical signs started. The owner was unaware of breeding history since all animals were kept together.

On clinical observation the vital parameters such as heart rate (66 beats per minute), pulse rate (54 beats per minute), and temperature (38.6º C) were normal. The animal was bright, alert, and responsive. The animal was continuously straining to deliver the kid, and the attempts were futile. A ruptured water bag with two finger dilatation of cervix was noticed during per vaginal examination. The foetus head and forelimbs were reachable, and devoid of reflexes. Based on the age of the animal and the history the condition was diagnosed as dystocia due to foeto-pelvic disproportion. The attempts to deliver the foetus per vaginum by manual extraction were failed. The prognosis was explained to the owner, and a surgical option was adopted.

TREATMENT AND DISCUSSION

The animal was stabilised with parenteral fluid (Ringer's lactate @ 20 ml/kg, IV) and a pre-operative antibiotic (ceftriaxone @ 20 mg/kg, IV). Anaesthesia was induced by administering ketamine (3 mg/kg, IV) and

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diazepam (0.5 mg/kg, IV). Local anaesthesia was achieved by linear infiltration with 2 per cent lignocaine. The surgical site, the lower mid flank was prepared aseptically. The hysterotomy was performed as per standard procedure, and one dead male emphysematous foetus along with the foetal membranes, was removed. Hydrocephalus and prognathism was observed as fetal abnormalities (Figure 1). The uterus was closed in a two-layer pattern, lambert followed by Cushing (Figure 2) and the muscles were closed with simple continuous sutures. The skin was opposed in a cruciate pattern, and the surgical wound was dressed regularly.

Figure 1. Dead emphysematous foetus with hydrocephalus and prognathism and foetal membranes

Postoperatively, ceftriaxone (20 mg/kg) and meloxicam (0.5 mg/kg) were administered intravenously for four days. The appetite of the animal improved from day one of surgery and over the next few days. The sutures were removed after seven days, and the animal recovered uneventfully.

Figure 2. Uterus closed in two layer pattern (Lembert followed by Cushing pattern)

The main foetal related causes of dystocia in goats are faulty maldisposition, foetal deformity, and an over-sized foetus (Ali, 2011 and Sharma *et al*., 2014). Hydrocephalus is defined as an abnormal accumulation of cerebrospinal fluid in the ventricles or cavities of the brain, which results in cranial cavity expansion (Noakes *et al.,* 2001). Foetal abnormalities are more common in cattle (Yadav, 2008), but they are uncommon in does (less than 3 %) (Jackson, 2004). Prognathism was a less common developmental abnormality with relative shortening of the maxilla compared with the mandible and reported in few goats.

Caesarean section is a life-saving surgical procedure performed on goats that are unable to deliver per vaginally. In general, the

outcome and success rates are substantially higher if surgery is conducted early, while the foetus is still alive or has recently died (Hussain and Zaid, 2010). The length of time delay between the start of labour and the time of presentation for surgical intervention had a significant impact on the survival rate of both the dam and the new born (Sharma *et al.,* 2014). Foetal and dam survival rates in goats undergoing caesarean section are reported to be 23 % and 94 %, respectively (Bhattacharyya *et al.,* 2015). There is relatively little scientific data on future fertility in does that have had caesarean section. In general, the prognosis for future fertility in goats is good when minimum vaginal manipulation is performed before prompt referral for surgical intervention.

To summarise, prolonged dystocia in goats and unnecessary extended vaginal delivery attempts have a negative impact on the outcome. Early intervention, such as performing a caesarean section, can result in the delivery of live kids and much healthier dams (Ismail, 2017).

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