

Dystocia due to Hydrocephalus fetus in a non- descript ewe- a case report

V. Divya * and S.C. Chaithanya

Veterinary Dispensary, Mallial, Telangana 505452

*Corresponding author: E-mail- drdivyavet11@gmail.com ; Ph. 8125368690

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Abstract

A non-descript ewe was presented with a history of labour since 8 hours. Vaginal examination revealed fluctuating swelling in the occipital region of fetal head on palpation. The fetus was delivered through cesarean section and had an enlarged head with abnormal fluid accumulation confirming hydrocephalus. An uneventful recovery was observed following cesarean section and post- operative treatment.

Key words: Ewe; hydrocephalus; cesarean section

Introduction

Hydrocephalus refers to the enlargement of the cranium due to abnormal accumulation of the fluid in ventricles or cavities of brain (Noakes *et al.*, 2001). Internal hydrocephalus is due to excessive fluid in the ventricular system and external hydrocephalus is rare and due to excessive fluid between brain and dura matter (Roberts, 1982); commonly seen in pigs, calves and puppies but rarely in sheep and goat (Noakes *et al.*, 2001). The condition of fetal monsters/abnormalities is uncommon and does not exceed 3% in ewes (Jackson *et al.*, 2004). This report is an attempt to provide information on a case of dystocia due to fetal hydrocephalus in a non-descript ewe.

Case history and observations

A full term five year old non-descript ewe was presented to the Veterinary Dispensary, Mallial, Telangan, with a history of abdominal straining, reduced feed and water intake from previous day. Clinical examination revealed elevated temperature, pulse and respiratory rate. Per- vaginal examination revealed incomplete cervical dilatation. Complete cervical dilatation was observed 30 minutes after administering Valethamide bromide (20 mg/dose). Following cervical dilatation, per vaginal examination revealed fetus in anterior presentation with enlarged head and the case was tentatively diagnosed as hydrocephalus and thus cesarean section was performed immediately.

Treatment

The ewe was restrained on right lateral recumbency while the left abdominal area was shaved, scrubbed and cleaned with application of surgical spirit. The site was anesthetized by 2% lignocaine hydrochloride as local anesthesia. Cesarean section was performed by paramedian approach. Following skin and muscle incision, uterus was exteriorized and incised. A dead male fetus with enlarged head was removed. The uterus was flushed with normal saline and sutured with double inversion sutures. Abdominal incision was closed in a routine manner. Post-operative care involved intravenous administration of 5% DNS (500ml), I/V, a course of antibiotics Inj. Ceftriaxone 300mg I/M (Intacef) for 5 days, Inj. Meloxicam (Melonex) 5mg/ml I/M @ 0.5mg/kg body weight to reduce pain, Inj. Tribivet 2.5ml I/M. The postoperative antibiotic and supportive therapy was continued for next four days and the ewe showed an uneventful recovery.

On examination abnormal fetus had enlarged head with soft skull and fascio-mandibular defects (Fig. 1). On incision, there is an abnormal accumulation of cerebrospinal fluid and no structures were observed inside the cranial cavity (Fig. 2).



Fig1. Hydrocephalus fetus



Fig. 2. Cerebrospinal fluid in cranial cavity

Discussion

The causes of dystocia are fetal or maternal in origin. Hydrocephalus is assumed to be due to altered production and absorption of cerebrospinal fluid and altered disturbances in normal circulation (Fride *et al.*, 1975). Hussain and Zaid (2010) have reported that fetal causes of dystocia were more common than maternal causes. Congenital hydrocephalus in domestic animals is due to autosomal recessive genes (Roberts, 1982). Hydrocephalus appears as flaccid fluid filled sac with malformations of eyes, ears and mandibles as seen in present case. The enlarged head cannot pass through the birth canal and results in dystocia and the fetus may be delivered by cesarean section. The exact cause of hydrocephalus in the present case was not clear. However reports have indicated that alterations in genetic factors, infectious agents and environmental factors cause hydrocephalus (Kalman *et al.*, 1989).

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