

DYSTOCIA IN A DOE DUE TO HYDROCEPHALOUS FETUS

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Submitted 11 Dec 2020

Accepted 24 Jan 2021

ABSTRACT

Doe with 4 years age was presented to the college clinic with a history of severe straining past two days. Per-vaginal examination revealed that cervix was not dilated and was treated with 10mg of Valethamate bromide and no improvement was noticed. Hence, caesarean section was performed to relieve the foetus. After caesarean operation, a hydrocephalus fetus was delivered. The foetus was malformed with an enlarged head. Post mortem examination revealed an abnormal increase in the amount of cerebrospinal fluid within the cranial cavity accompanied by expansion of cerebral ventricles, enlargement of the skull especially forehead and atrophy of brain. The Present case discusses report about the rare condition in doe with dystocia due to hydrocephalus fetus.

Key words: Hydrocephalus fetus, caesarean section, doe.

INTRODUCTION

Several pathologies are encountered due to infectious and non-infectious reasons at pre-implantation, embryonic and foetal period in goat foetus. Hydrocephalus is one of embryopathy (Semecan *et al*, 2012) condition where excess cerebrospinal fluid is accumulated in cranial cavity. Based on the location of fluid, this condition can be classified as internal hydrocephalus (fluid in ventricles of brain) and external hydrocephalus (fluid in subarachnoid space) sometimes there may be combination of two (Roberts, 1971). Hydrocephalus internal is common in animals (Jubb *et al.*, 1993). The present case report described the delivery of hydrocephalous fetus by caesarean section in a doe.

CASE HISTORY & OBSERVATIONS

A full term doe aged about 4 years was presented to the college clinic with history of severe abdominal straining. The animal was observed to be restless with anorexia and exhibiting colic like symptoms. Physiological parameters like body temperature, pulse and respiratory rate were within the normal limits. Vaginal examination revealed that cervix was incompletely dilated.

TREATMENT AND DISCUSSION

Cervical dilation was unsuccessful even after administering 10mg of Valethamate bromide¹ injection and hence caesarean section was decided. The surgery was performed under xylazine sedation and local analgesia as per Roberts (1971). The doe was restrained in the right lateral recumbency and caesarean section was performed in the left side by paramedian approach.

A dead fetus with enlarged head was removed (Fig-1). The uterus was closed by double layer of inversion sutures and abdominal incision was closed in routine manner. Postoperatively animal was treated with inj Ceftriaxone2 (500 mg IM x 5 days), Intalylte3

(250 ml, IV X 2 days), and inj Meloxicam4 (3 ml, IM X 3 days) along with herbal ecbolic and animal recovered uneventfully. On examination of the foetus, the facial part of skull was narrow, disproportionately small, soft and prone to pressure. Post mortem examination of the foetus was carried out to know the abnormality. Cranial bones were thin with defects, filled with fibrous membrane. There was an abnormal increase in the amount of cerebrospinal fluid within the cranial cavity that is accompanied by expansion of cerebral ventricles, enlargement of the skull especially forehead and atrophy of brain. From the above post-mortem findings, the case was diagnosed as hydrocephalous kid.

There are several factors that affect the reproductive performance of the goats which can decrease their numbers due to death of the foetus or dam. One of the most important factor which lead to great economic losses was the dystocia (Rehman *et al.*, 1999). The incidence of dystocia in goats has been reported about (7%) from reproductive diseases (Rehman *et al.*, 2000). The causes of dystocia have been reported either due to maternal or foetal in origin. Recent studies revealed that the foetal cause of dystocia was more common than the maternal causes (Hussain and Zaid, 2010). Morphological deformations, which in consequence influence the functioning of internal organs are the effect of malformation in prenatal period. These malformations based on order intensity are described as teratoma or distortion. Reasons of these malformations in order to different authors have genetic or environmental background (Jubb *et al.*, 1993).

¹ EPIDOSIN- TTK pharma; ²INTACEF-Brand of Intas Animal Health, Ahmedabad ; ³ INTALYTE- Brand of Intas Animal Health, Ahmedabad ; ⁴ MELONEX- Brand of Intas Animal Health, Ahmedabad;

Congenital hydrocephalous in domestic animals is inherited through an autosomal recessive gene, although the role in its origin may be played by viral infections of foetus and dietary factors (Bester *et al.*, 1976). Genetic factor and vitamin A deficiency play an important role in causing fetal hydrocephalus (Venkataramana *et al.*, 2017). Apart from these factors, infectious agent, dwarfism, hydroamnion and high liver copper levels also act as etiological agents (Mahant *et al.*, 2017). Noakes *et al.*, (2001) reported smooth and pliable cranial bones in fetal hydrocephalus. Malformed eyes, ears and mandible found in fetus were in accordance with findings of Divya and Chaithanya (2016)

The present casereport is about a rare case of dystocia due to hydrocephalus successfully managed by caesarean section in a doe.

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Figure-1: Hydrocephalus foetus