MANAGEMENT OF DYSTOCIA DUE TO FETAL ANASARCA WITH ASCITES AND HYDROCEPHALUS IN A COW: A CASE REPORT

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ABSTRACT

A Jersey crossbred cow was admitted with the history of dystocia. A large sized anasarcous fetus along with ascites and hydrocephalus was delivered after puncture and draining of fluid using William's long obstetrical hook and traction.

Key words: Anasarca, Ascites, Hydrocephalus

INTRODUCTION

Fetal anomalies and monsters usually lead to dystocia in bovines (Hanie, 2006). Fetal monsters arise from adverse factors affecting the fetus 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; Chandrasekaran *et al*., 2015). The present paper describes a case of dystocia due to fetal anasarca along with ascites and hydrocephalus delivered per vaginum.

CASE HISTORY AND OBSERVATIONS

A full term pregnant five years old Jersey crossbred cow on its second gestation was brought to the Teaching Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with history of dystocia. The water bag ruptured 6 hours back; continuous straining was observed but the animal was unable to deliver the fetus on its own. The general clinical parameters were normal. Per vaginal examination following lubrication with cetrimide cream revealed a fully dilated cervix, dry vaginal passage and the presence of fetal head with excessive accumulation of fluid in the birth canal. Examination of the fetus revealed subcutaneous edema of the entire body indicating fetal anasarca along with fluid accumulation in the abdominal cavity (fetal ascites).

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TREATMENT AND DISCUSSION

The animal was placed and restrained in the hindquarter elevator for easy handling and delivery of the fetus. Under epidural anaesthesia using 3 ml of 2% lignocaine hydrochloride, the birth canal was sufficiently lubricated with cetrimide cream. The enlarged dropsical fetus completely obliterated the birth canal. The fetal abdomen was punctured using William's long obstetrical hook to reduce the size of the abdomen and approximately about 10 liters of ascitic fluid was drained and the fetal size was moderately reduced. Then the fetus was delivered by the application of William's long obstetrical hook on the inner canthus of eye along with the judicious traction on both the forelimbs. Examination of the fetus revealed an abnormally large sized fetus with generalized edema all over the body. The fetal head was larger in size (Fig.) and the cranial cavity filled with fluid (hydrocephalus). The subcutaneous tissues around the shoulder region were filled with watery fluid and the fetus weighed 31.7 kgs. Radiography of fetal head, revealed soft tissue involvement. Following fetal delivery, the dam was administered with 1500 mg of enrofloxacin (i/m), 150 mg of meloxicam (i/m), 100 mg of pheniramine maleate (i/m), intravenous fluids (3 liters of 5% dextrose normal saline, i/v) and 30 IU of oxytocin (i/m).

Fig. Fetal anasarca with ascites and hydrocephalus

Fetal anasarca is the result of a disturbance of fluid exchange and may be of placental origin. Fetal ascities (Selvaraju *et al.,* 2009; Prakash *et al.,* 2016) or fetal anasarca or fetal hydrocephalus (Prakash *et al.,* 2016) and not combination of any two the dropsical condition of the fetus were recorded. In the present case, fetal anasarca was associated with ascites and hydrocephalus. The probable cause of fetal anasarca is hereditary predisposition due to autosomal recessive genes (Arthur *et al*., 1996) especially affecting normal embryonic lymph node development (Tamizharasan *et al*., 2008). The lesions observed in the fetus were similar to those described by Arthur *et al*. (1996) in an anasarcous fetus of cattle. Usually, the affected fetus is carried to full term and there is lack of progress in second stage labour, due to increase in fetal size caused by excess fluid in subcutaneous tissue and distended abdomen and the fetus may not survive even if it is delivered alive.

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