Case Report

DYSTOCIA DUE TO HYDRAMNIOS ASSOCIATED WITH CLEFT PALATE IN A GRADED MURRAH BUFFALO

B.V.S. Bhavya Charitha[*1], B. Chandra Prasad[2] and M. Srinivas [3]

Department of Veterinary Gynaecology and Obstetrics
N.T.R. College of Veterinary Science, Sri Venkateswara Veterinary University
Gannavaram, Andhra Pradesh, India

ABSTRACT

A pregnant graded Murrah buffalo at eight months of gestation in third parity having bilateral distension of abdomen was presented. The case was diagnosed as hydramnios and treated with dinoprost tromethamine, diethyl stilbesterol, valethamate bromide and dexamethasone. After 76 hours, cervix was dilated fully and trans-cervical amniocentesis was performed and approximately 60-70 litres of amniotic fluid was drained and a dead male fetus with cleft palate was delivered.

Keywords: Buffalo**,** hydramnios, trans-cervical amniocentesis, cleft palate

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INTRODUCTION

In one out of 7500 bovine pregnancies, hydramnios and hydrallantois are recorded as dropsical conditions (Jackson, 1995). Fetal salivary glands, lungs, skin and associated structures secretes amniotic fluid, and the volume is regulated by the fetus through swallowing (Zdunczyk and Grunert, 1999). Hydramnios occurs during the last half of the pregnancy as a result of fetal anomaly, depicted by progressive accumulation of amniotic fluid and normal placenta (Drost, 2007). Excessive accumulation of amniotic fluid can reach up to ~ 25 litres (normal volume of amniotic fluid near term is 3-5 litres); adverse sequel is uncommon due to gradual onset and nature of disease. The dam's life and fertility prospects are fair to good (Roberts, 2004). This condition is most commonly seen in cattle (Noakes *et al*., 2001) but also observed in buffaloes (Sathya *et al*., 2006). In severe cases, drug induced assisted parturition or caesarean section is advised (Jackson, 1995).

CASE HISTORY AND OBSERVATIONS

A third parity graded Murrah buffalo at eight months of gestation was presented to Obstetrical unit, Gannavaram with complaints of anorexia, inability to walk and bilateral

[1]PG Student, corresponding author Email id: bhavyacharitha97@gmail.com
[2]Assistant Professor
[3]Professor and Head

distension of abdomen (Fig 1).. According to the owner's observation, the abdomen gradually increased in size over 45 days Rectal palpation revealed a rigid uterus with inaccessible fetal parts and placentomes.

Vaginal examination revealed no dilatation of cervix. Ultrasonographic examination indicated the presence of large volume of fluid with placentomes spaced farther away. On gynaecological examination, the case was tentatively diagnosed as dropsical condition.

TREATMENT

The buffalo was administered with dextrose 20 % (Intalyte) one litre I/V, Dextrose Normal Saline (DNS) two liters I/V, along with dinoprost tromethamine (Prodino) 25 mg I/M, valethamate bromide (Epidosin) 80 mg I/M, diethyl stilbesterol (Diethy) 50 mg I/M and dexamethasone (Dexona) 40 mg I/M. On the second day after therapy, vaginal examination revealed two finger cervical dilatation. The Foley's catheter (18'') was fixed at the level of internal os of cervix and the balloon was inflated with 10 ml air to relieve the fluid. This led to drainage of syrupy and viscid fluid of about 60-70 litres, which was slowly drained over a period of 3 hours. Simultaneously, dextrose normal saline @ 3 litres and dextrose 20 % (Intalyte) @ 1 litre were administered intravenously to prevent shock.

Subsequently complete cervical dilatation was achieved after 76 hours of induction. A dead defective male fetus with cleft palate was delivered on mutational operations (Fig. 2). The placenta was removed by gentle traction. Post operatively, dam was administered with oxytocin (Syntocin) 25 IU I/M, cefperazone and sulbactum (Guardplus) 4 gm I/M, flunixin meglumine (Megludyne) 300 mg I/M and chlorpheniramine maleate (Zeet) 150 mg I/M. Follow-up treatment was given with cefperazone and sulbactum (Guardplus) 4gm I/M, flunixin meglumine (Megludyne) 300 mg I/M and chlorpheniramine maleate (Zeet) 150 mg I/M for three consecutive days. The buffalo exhibited an uneventful recovery.

DISCUSSION

Hydramnios was a congenital defect due to the expression of recessive gene (Leipold and Dennis, 1980). This condition was usually associated with cranial abnormalities of the fetus such as cleft palate, which leads to accumulation of amniotic fluid due to impaired swallowing (Jackson, 1995). The cleft palate seen in the present case could be the cause of hydramnios. In fact, hydramnios can also develop as a result of other concomitant conditions such as abnormality of the esophagus, anencephaly in which cerebrospinal fluid accumulates, impairing swallowing reflexes (Jackson, 1995). Thus, trans-cervical amniocentesis with slow drainage of the amniotic fluid and appropriate fluid therapy resulted in avoidance of shock in the patient. If large volume of fluid was drained out rapidly from the uterus, the animal could have developed shock. In order to prevent shock in the present case, large quantity of intravenous fluids were

Figure 1: Bilateral enlargement of abdomen

Figure 2: Cleft palate

administered. According to Jackson (1995) and Drost (2007) amniotic fluid is lubricating, mucoidal, viscus and syrupy in consistency, which is also similar in the reported case. In the present case, it is emphasized that cleft palate might have led to impaired swallowing, which would have resulted in gradual accumulation of fluid in the amniotic cavity.

CONCLUSION

Hydramnios and hydrallantois are the two most common conditions associated with dropsy of the fetal membranes. Although these are rare conditions in veterinary practice, they still cause economic loss to farmers. The present case report concludes the occurrence of hydramnios based on several previously suggested findings by various authors i.e., based on colour and consistency of fetal fluid and presence of congenitally malformed fetus.

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