

DYSTOCIA DUE TO FETAL ASCITES, ANASARCA AND MICROMELIA IN A BUFFALO

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ABSTRACT

The present communication depicts a case of dystocia in buffalo due to multiple congenital abnormalities which include fetal ascites, anasarca and micromelia.

Key words: Anasarca, Ascitis, Buffalo, Dystocia, Micromelia

INTRODUCTION

Ascites is the accumulation of fluid in peritoneal cavity (Singh *et al.*, 2010) and anasarca is the generalized swelling in body due to excessive fluid retention in the tissues (Bijurkar *et al.*, 2004) which lead to dystocia in buffaloes. Micromelia is a rarely found condition characterized by abnormal shortness of one or more extremities. The present communication depicts a case of dystocia due to fetal ascites, anasarca and micromelia in a buffalo.

CASE HISTORY AND OBSERVATION

A full term pregnant buffalo on its 5th parity was presented to the Veterinary Clinics, GADVASU, Ludhiana with the history of intermittent fever, partial anorexia and straining since last 12 hrs. Further, clinical examination revealed hyperthermia (104.4 F), congested conjunctiva and oral breathing. Foul smelling, sanguineous vaginal discharge was also present. Per-vaginum examination revealed incomplete cervical dilation and emphysematous fetus.

TREATMENT AND DISCUSSION

A male emphysematous fetus (Fig.) was removed by caesarean section. Examination of fetus revealed enlarged abdomen and fluid thrill was felt in the opposite side of the abdomen indicating ascites. There was also generalized edema of body with extensive wrinkles indicative of anasarca. Both the fore limbs were of normal size. However, the hind limbs were abnormally short indicating micromelia. The exploratory dissection of fetus revealed excessive accumulation of straw coloured

fluid in the peritoneum. The liver, kidneys and heart were very small in size. The peritoneal fluid was collected and sent for biochemical and cellular examination. The buffalo was given Amoxicillin with Salbactam (Amoxyrum forte 3g, Virbac) once a day, Gentamycin 30ml (Cadila) BID along with supportive therapy i.e. Vit and Selinium (E care Se 10 ml, Vetcare Pharma) and Vitamin B Complex (Livadex forte 10 ml, Virbac) for 7 days. Buffalo was discharged from clinics 4th day of operation and feedback from owner revealed uneventful recovery.

The biochemical analysis of fetal peritoneal fluid revealed Alkaline Phosphatase 32 U/L, total proteins 1.4 g/dl, LDH 205 U/L, blood urea nitrogen 28 mg/dl, creatinine 1.6 mg/dl, sodium 127 mmol/L, potassium 8.4 mmol/L and chloride 94 mmol/L. The biochemical profile of peritoneal fluid is similar to the serum profile in Holstein dairy calves and higher total proteins (> 1.1 g/dL) indicate the ascites is due to portal hypertension (Mohri *et al.*, 2007). They also observed that portal hypertension plays an important role in developing ascites by raising capillary hydrostatic pressure within the splanchnic bed. Ascitic fluid may accumulate as a transudate or an exudate. In the present case, no bacterial growth was found in peritoneal fluid indicating transudate. This is also evident from the peritoneal fluid smear revealing occasional presence of mesothelial cells and leucocytes. Transudates have low protein (< 30g/L), low LDH, normal glucose, and less than 1 WBC per 1000 mm³ (Palanisamy *et al.*, 2007). According to Sloss and Dufty (1980) the obstruction of lymphatics prevents the circulation of peritoneal fluid which may cause fetal ascites. Regardless of the causes, sequestration of fluid within the abdomen leads to additional fluid retention by the kidneys due to

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stimulatory effect on blood pressure by the aldosterone. Fetal anasarca may occur due to autosomal recessive gene and can cause severe dystocia especially when dead fetus becomes emphysematous. Micromelia or nanomelia is a rare condition which develops due to hypochondroplasia (Rousseau *et al.*, 1996). Probably, this is the first case of micromelia reported in buffalo. However, Windsor *et al.*, (2006) reported a case of micromelia in dexter cattle.

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Fig. Fetus with fetal anasarca and micromelia of hind limbs

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