

DYSTOCIA DUE TO FETAL ANASARCA IN A CROSS-BRED COW

S. P. S. GHUMAN¹, M. HONPRKHE² AND JAGIR SINGH²

Department of Veterinary Gynaecology and Obstetrics,
College of Veterinary Science,
Guru Angad Dev Veterinary and Animal Sciences University,
Ludhiana-141 004 (Punjab)

Received : 09.04.2010

Accepted : 11.10.2010

ABSTRACT

A case of dystocia due to an unusually observed neck-brisket edema in an anasarctic fetus of a cross-bred cow and its vaginal delivery is reported.

Key words: Brisket edema, Cow, Fetal anasarca, Vaginal delivery

INTRODUCTION

Fetal anasarca is a form of "extreme generalized edema" characterized by wide-spread swelling of the skin due to subcutaneous and inter-muscular accumulation of fluid in muscles, umbilicus and legs (Roberts, 1986). A fetus with anasarca may be prone to dystocia because the generalized edema will cause the fetus not to pass through the pelvic canal (Noakes *et al.*, 2001). Therefore, laparohysterotomy is usually performed for the delivery of oversized anasarctic fetus (Kumar *et al.*, 2005); however, the present case report depicts the successful vaginal delivery of an anasarctic cow fetus.

CASE HISTORY AND OBSERVATION

A full term pregnant cross-bred cow in its second parity was brought to the university veterinary hospital with the history of severe straining for the last 24 hours and the rupture of water bags 6-7 hours back. Vaginal examination revealed a fully dilated cervix with moist birth canal. The fetus was in anterior longitudinal presentation, dorso-sacral position with right lateral deviation of head and hooves of both the fore limbs were extended into the birth passage. The absence of fetal reflexes suggested that the fetus was dead. Examination of the fetus revealed that ventral aspect of the neck was enlarged.

TREATMENT AND DISCUSSION

Following epidural anesthesia (10 ml, 2% Lignocaine HCl), birth passage was well lubricated using sodium carboxy methyl cellulose gel (Carmellose-Na 1%, WDT, Garbsen, Germany). After assessing the fetus, both the fore limbs were snared separately and

were repelled into the uterus. A cotton rope loop was placed around the fetal head and also around the lower mandible. Thereafter, traction was applied on the fetal head. At the same time, enlarged mass below the neck was guided into the birth passage by the hands of obstetrician. Thus, deviation of the head was corrected and the head and neck of the fetus were brought into the birth passage. Thereafter, by tracking the limb snares, both the fore limbs were straightened into the birth passage. Simultaneous application of traction on both the fore limbs and the fetal head resulted in successful delivery of the fetus. The fetal membranes were removed completely. The cow was discharged with the routine prescription of antibiotics and supportive therapy.

Grossly, based on the physical characteristics, the fetus was classified to be suffering from anasarca. The fetal calf was having edema involving the head, ventral aspects of neck, brisket and hind quarters (Figure). Usually, in an anasarctic fetus, excessive generalized enlargement leads to dystocia (Kumar *et al.*, 2005), however, in the present case, localized severe edema in the ventral aspect of neck and brisket was the potential cause of dystocia. Post-mortem examination of the calf revealed glossy shiny fluid in tissues of the neck, brisket and hind quarters.

In anasarca condition, fetuses are usually aborted one to two months prior to term or may be carried to term, however, in the later case, the concern is caused by the lack of progress in the expulsive stage of parturition (Kumar *et al.*, 2005, Sane *et al.*, 1994, Singh, 1993). Normally a case of fetal anasarca requires multiple incisions to drain liquid (Noakes *et al.*, 2001), however, in the present case; vaginal delivery was

possible subsequent to appropriate lubrication of the birth passage and after proper guidance of enlarged neck-brisket region into the birth passage.

Anasarca of fetus is believed to be due to disturbance of liquid exchange of placental origin and is associated with autosomal recessive gene and electrolyte imbalance (Roberts, 1986). Other conditions responsible are liver dysfunctions and protein or vitamin deficiency (Roberts, 1986). These multiple factors lead to great increase in fetal size associated with the accumulation of fluid in the subcutaneous tissues.

REFERENCES

- Noakes, D.E., Parkinson, D.J. and England, G.C.W. (2001). *Arthurs Veterinary Reproduction and Obstetrics*, (Ed.), 8th edn., Noakes, D. E., Saunders Harcourt, India. pp 118-20.
- Roberts, S.J. (1986). *Veterinary Obstetrics and Genital Diseases (Theriogenology)*, 3rd edn., Woodstock, Edwards Brothers Inc. pp 283-350.
- Sane, C.R., Kaikni, A.S., Kodagali, S.B., Hukeri, V.B., Despande, B.R., Velhandar, D.P., Luktuke, S.N. and

Deopurkar, V.L. (1994). Cited from *Reproduction in Farm Animals. Theriogenology*. 2nd edn., Varghese Publication House, Bombay.

Singh, M. (1993). Some observations on abortions due to fetal ascitis / anasarca in cows. In proceedings of "National Symposium on role of theriogenology augmenting fertility in domestic animals", Calcutta, India, November, 25-27, 1993. pp S- IX, 13.

Kumar, S., Bhatt, P., Prasad, J.K., Rawat, A.K., Maurya, S.N. and Kumar, S. (2005). Dystocia due to fetal anasarca in a cross-bred cow. *Indian J. Anim. Reprod.*, 26: 177.



Fig. Calf having brisket and neck edema.
Inset: edema of hind quarters.

ISSAR AWARDS

A.S. KAIKINI AWARD

- ☞ The award is given for Lifetime achievement in Andrology by a Life member of ISSAR
- ☞ The applicant should be above 50 years of age.
- ☞ The applicant should forward eight copies of Bio-data and best five papers in Andrology with all supporting document as proof of his contribution in Andrology to the General Secretary, ISSAR before 31st March of the convension year.
- ☞ The award is given once in three years and consist of a gold plate 30 gram silver and a certificate.
- ☞ Application form may be obtained from the General Secretary, ISSAR