

A RARE CONGENITAL ANOMALY IN A BUFFALO FETUS WITH SHORT SPINE AND HIND LIMBS TWISTED BACK ON THE FETAL HEAD

Navdeep Singh*, S.P.S. Ghuman, M. Honparkhe and V.K. Singla

ABSTRACT

A very rare case of congenital deformity with hindlimbs turned back on the fetal head and per-vaginum delivery aided by fetotomy is reported.

Keywords: buffalo, congenital anomaly, limbs, twisted

last 10 h and the rupture of water bags. Vaginal examination revealed a fully dilated cervix with moist birth canal. The fetus, without any reflex, was in anterior longitudinal presentation, however, none of the limbs were extended into the birth passage. Further vaginal examination of the fetus revealed presence of two hooves and flexion of two limbs, thus, suggesting a postural defect.

INTRODUCTION

Congenital malformations of the fetus related to skeletal system are one of the most difficult disorders. Some of these involving hind limbs are arthrogryposis and schistosoma reflexum (Gentile and Testonoi, 2006). The present case report depicts fetotomy operation for the successful vaginal delivery of a buffalo calf with a rare congenital deformity of the hindlimbs.

CASE HISTORY AND OBSERVATIONS

A full term pregnant buffalo in its first parity was brought to the university veterinary hospital with the history of severe straining for the

TREATMENT AND DISCUSSION

Following epidural anesthesia (7 ml, 2% Lignocaine HCl), birth passage was well lubricated using sodium carboxy methylcellulose gel. To create working space in the birth passage and after assessing the fetus, fetotomy wire loop was placed around the neck of fetus and head was amputated (Figure 1). Traction on amputated fetal parts lead to removal of head and a forelimb. Attempts were made to flex the hooves of hindlimbs but no success was achieved. Therefore, using a calving rope carrier, fetotomy wire was passed around the lumbar region and the cut was completed. Thoracic and lumbar portions of the fetus were removed using mild traction. Due to failure in removing the remaining fetal portion, pelvic bisection was carried out and the remaining parts of the fetus were



Figure 1. Buffalo fetus with short spine and hind limbs twisted on the back.

removed per-vaginally. Gross examination of the calf revealed a rare congenital anomaly in which hindlimbs were twisted on the back of buffalo calf (Figure 1).

A thorough search of the literature indicated no such abnormality. However, the most related abnormality was ‘Complex Vertebral Malformation’ which is characterized by reduced body size, short spine and arthrogyrosis (Joint contracture; Whitlock *et al.*, 2008). The size and spine of fetus were also small in the present case (Figure 1). In schistosomus reflexus, the hindlimbs are completely turned back on fetus itself and the fetus is compacted (Gentile and Testonoi, 2006). Similar findings were observed in present case, however, contrary to schistosomus reflexus, the spine was not curved and the abdominal skin was intact (Figure 1). As far as etiology is concerned, the possible candidates are recessive genes, viral infection or some teratogens (Whitlock *et al.*, 2008). In summary, thorough assessment of defective fetus and know-how about fetotomy procedures can save the life of dam as vaginal delivery is less traumatic and fertile life of buffalo is saved.

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