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Dystocia Due to Dicephalus Fetal Monster in a Buffalo

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Abstract

This case report documents a rare case of dystocia caused by a dicephalus fetal monster in a buffalo. Vaginal examination revealed a fully dilated cervix and a dead fetus with duplicated heads in anterior presentation. The fetus was delivered per-vaginum by lubrication and obstetrical manoeuvre with uneventful recovery of the dam.

Keywords: Buffalo, dicephalus, fetal monster, dystocia, traction

Introduction

Fetal monstrosities result from disturbances during embryonic development leading to duplication, absence, or malformation of body parts (Singh *et al*., 2022). Dicephalus is a congenital anomaly characterized by duplication of the head with a single trunk, usually arising from incomplete division of monozygotic twins during early embryogenesis (Pravesh *et al*., 2014). Such fetuses frequently produce dystocia because of their increased cranial diameter and abnormal configuration, preventing normal passage through the birth canal (Shivkumar *et al.,* 2019). The present report describes the clinical management of dystocia due to a dicephalus fetus in a buffalo successfully relieved by per-vaginal traction.

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Case History and Observation

A five - year old full-term pregnant buffalo was presented at Veterinary Dispensary Markapur, with a history of prolonged labor, continuous straining and failure to deliver the fetus. The animal was restless, anorectic and showed signs of exhaustion due to persistent abdominal contractions. Per-vaginal examination revealed complete cervical dilation and a fetus in anterior longitudinal presentation with both forelimbs extended into the birth canal. On further exploration, two separate heads were palpated at the fetal cranial end. (Fig) Absence of corneal and interdigital reflexes along with lack of fetal movements indicated fetal death. Based on these findings, the condition was diagnosed as dystocia due to a dicephalus fetal monster.

Treatment and Discussion

As the cervix was fully dilated and the fetus was accessible, delivery was attempted per vaginally. After administering 2% lignocaine (5ml) through epidural route the birth canal was thoroughly lubricated with 0.5% carboxymethyl cellulose. Snares were applied to both forelimbs, and an eye hook was placed in one orbit of the first head. In the same manner, another eye hook was applied to one orbit of the second head, and traction was applied alternatively to both eye

Figure. 1 Dicephalic head in calf

hooks in coordination with the animal's straining efforts. The dead fetus was delivered successfully per vaginum and the dam recovered uneventfully.

Following delivery, gross examination of the fetus revealed duplication confined to the cranial region. Two distinct and well-developed heads (Figure) were present, each possessing normal eyes, nostrils, mouth, but the pinnae of the medial ears were absent. The heads were fused at the neck region, among which one head aligned with the cervical vertebrae while the thorax, abdomen, pelvis, and limbs were single and normally developed. Post-obstetrical management included administration of broad-spectrum antibiotics, anti-inflammatory drugs, fluid therapy and uterine ecbolics. The dam recovered uneventfully and resumed normal feeding behavior

Dicephalic fetuses are known to cause severe dystocia due to enlarged cranial mass and abnormal alignment (Patil *et al*., 2004; Verma *et al*., 2024). Although fetotomy or caesarean section is often considered effective for managing this condition, similar case of dystocia due to dicephalus fetal monster in a buffalo was delivered by per-vaginal delivery by Narayana Rao (2019). Embryologically, dicephalus results from incomplete division of the embryonic disc after the early stages of fertilization, leading to conjoined twins sharing a common trunk (Kumar and Solanki 2018). Several maternal factors including nutritional deficiencies, mineral imbalance, Vitamin deficiency (A and Folic acid), ingestion of teratogenic plants, viral infections, and genetic abnormalities have been implicated in the occurrence of such anomalies (Roberts, 1986).

Summary

Dicephalus fetal monstrosity, though rare, constitutes an important fetal cause of dystocia in buffaloes. Careful vaginal examination enables accurate diagnosis and selection of appropriate obstetrical management. When cervical dilation is complete and fetal presentation is favorable, controlled per-vaginal traction can effectively relieve dystocia without resorting to surgical intervention. Early Veterinary assistance is essential to minimize maternal complications and to ensure survival of the dam.

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