

DELIVERY OF ARTHROGRYPOSIS MULTIPLEX BUFFALO CALF WITH SUPERNUMERARY TOOTH IN THE DENTAL PAD THROUGH PARTIAL FETOTOMY

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ABSTRACT

A buffalo calf suffering from arthrogryposis multiplex and reported for the first time with a supernumerary tooth in dental pad was delivered per-vaginum through single fetotomy cut involving removal of both neck and head.

Key words: Arthrogryposis, Buffalo, Dystocia, Fetotomy, Supernumerary tooth

INTRODUCTION

Arthrogryposis multiplex or 'curly calf syndrome' is a genetic defect usually reported in calves of Angus cattle (Leipold *et al.*, 1993). The incisors are absent from the upper jaws of all ruminants including buffalo and the "dental pad" takes up their place. The present case describes the delivery of buffalo calf with arthrogryposis multiplex and congenital tooth in dental pad through partial fetotomy.

CASE HISTORY AND OBSERVATIONS

A full term buffalo in second parity after completion of first stage of labour was presented to veterinary clinics of the teaching hospital. Earlier attempts for the delivery of fetus per vaginum were not successful. Per-vaginal examination revealed relaxed and wet birth passage without any edema. Fetus was in anterior longitudinal presentation and dorso-ilial position. The posture of fetus suggested right lateral deviation of the head with both the forelimbs flexed at knee joints, however with some degree of ankylosis and rigidity. Absence of suckling and eyeball reflex indicated that fetus was dead.

TREATMENT AND DISCUSSION

Following epidural anesthesia (8 ml, 2% Lignocaine

HCl) and after doing ample lubrication of the birth passage with 1% sodium carboxy methylcellulose gel, an unsuccessful attempt was made to correct the fetal postural defects. Thereafter, decision was taken to perform fetotomy using Thygeson's fetotome loaded with the wire saw. A single fetotomy cut removed both neck and head. Moderate traction was applied on the forelimbs and on the vertebral column using Kray Schottler hook and remaining fetus was delivered successfully. The placenta was removed completely soon after the delivery of fetus. The buffalo was discharged with the routine prescription of antibiotics and supportive therapy. The careful examination of the a comparatively small size calf revealed



Figure 1: Arthrogryposis multiplex with inset picture showing supernumerary tooth in dental pad

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permanent contracture of the joints of the front and/ or hind limbs, torticollis leading to lateral deviation of head, undershot jaw or brachygnathia and with abnormal side-to-side curvature of the spine (scoliosis, Figure 1). The characteristics of deformed fetus were indicative of a condition known as arthrogryposis multiplex (Abbott *et al.*, 1986). Muscles from affected limbs were hypoplastic or atrophied which is usually attributed to disuse of the affected limbs (Abbott *et al.*, 1986). The condition arises due to feeding of some weedy plants like lupine, astragalus and oxytropis during first trimester of gestation and the condition is hereditary in Angus cattle breed (Leipold *et al.*, 1993). Nevertheless, the observed deformity also indicated a congenital or supernumerary tooth in the dental pad

that was not reported earlier. Supernumerary teeth are extra permanent or deciduous teeth, which form in either jaw. They occur in 0.3 to 3.8% of the human population and 90% of all occurrences were found in the upper jaw (Leipold *et al.*, 1993).

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