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A Rare Case of Diprosopus Calf in a Nagori Cow

ABSTRACT

A full term pluriparous Nagori cow was referred to clinic with dystocia. Per vaginal investigation revealed dystocia due to narrow vulvar opening and monstrosities and relieved by applying traction techniques.

KEYWORDS: Nagori cow; Dystocia; Diprosopus; Episiotomy

INTRODUCTION

Dystocia is recurrent sequel of fetal monstrosities. Abnormal duplication of the germinal region throughout embryogenesis of monozygotic fetus will give emerge partial duplication of body structures [1]. Severe cranio-facial dysmorphogenesis in developmental duplication inadequacy consequences in diprosopus ('two faces') or possibly even dicephalon ('two heads'). Congenital inadequacy present at birth may affect a single structure or concern, an entire system, part of various systems or a structure and function [2].

Monstrosity is an inconvenience of the development that involves several organs and systems which can cause significant distortion of the individual [3]. Foetal incongruity and monstrosities are ordinary cause of dystocia in bovines [4]. The incidence of fetal monsters, though occasional, was reported by Hannappagol et al. (2005) and Sharma et al. (2010) [1,5] in bovines. Twin monsters are distinguish by duplication of anterior, posterior or both parts of fetal body and are recurrent in ruminants. In the present study, a fetal monster diprosopus with ankylosis was reassured by traction through episiotomy.

CASE HISTORY AND OBSERVATION

A Nagori cow aged four years in its first parity was reported to clinic with a complaint that inspite of signs of labour since morning animal has not delivered the calf. Clinical examination reported an increase in respiration and pulse rate with rectal temperature was 102.8°F. Manual examination revealed cervix dilated and fetus was in anterior presentation, neck deviated to left, water bag was ruptured and vulvar opening was very constricted.

CASE HANDLING AND TREATMENT

First of all fluid therapy was instituted to avoid shock during manual handling. Inj. NS 2 lit, inj. RL 2 lit, inj. 5% DNS 2 lit, inj. Dexamethasone 10 ml was given. Obstetrical examination revealed cervix dilated but vulvar opening was too constricted for smooth delivery. So dorsal commissar of vulva was sufficiently incised and then birth canal was lubricated through paraffin oil. Snares were applied on lower jaw and fore limbs and then applied traction of about four men. Live Monster male fetus was delivered. Examination of

fetus revealed fetus with two faces (diprosopus), two ears, four nostril with cleft palate and ankylosis of all limb joints and both head with brachygnathia. Suckling by calf was normal but milk came out from nostril. The calf survived for five days. Calf had normal appetite and suckling well from both mouths. Then progressively became off feed from third day and suffered from pneumonia inspite of treatment calf succumbed.

DISCUSSION

Monstrosities are result of abnormal or arrested fetal development and the condition frequently results in dystocia. Conjoined or fused symmetrical twins are mostly monozygotic in origin and represent incomplete division of one embryo into two components generally at the primitive streak of developmental stage and in the case they may develop into thoracopagus [6]. Anomalies occurring due to congenital imperfection often lead to dystocia. The incidence of congenital inadequacy in calves ranges from 2 to 3.5% [7]. Craniofacial dysmorphogenesis involve lesions of mild to severe facial abnormalities, including maxillary brachygnathia and mandibular prognathia, cleft palate, abnormality of the muzzle, unilateral or bilateral microphthalmia, fusion of the eyelid or conjunctiva to the cornea, confined palpebral fissures, hypoplasia of the oculomotor muscles, abnormalities of the ocular lens, and hypoplasia of the optic foramen, sometimes with the retinal surface of the eye in proximity to the brain [8]. The occurrence of diprosopus has been revealed in calves [9,10,11]. Diprosopus female calf was delivered through caesarean section by Ockan et al. (2005) [10]. In present case live male diprosopus monster fetus delivered through episiotomy in a Nagori breed cow.



Figure 1: Double headed (diprosopus) Nagori male calf

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