History and observation

A full term primipara cow of about 3 year age was attended at the State Livestock and Agricultural farm Babugarh, Ghaziabad (U.P.) with history of labor pain but it was futile to deliver fetus. Per- rectal examination of the animal revealed that cervix is not fully dilated. After giving cervical dilator drug Valathamate Bromide (48 mg, IM) along with natural Prostaglandin (25 mg, IM) and Dexamethasone (40 mg, IM). After reexamination it was revealed that birth canal was now open and fetal viscera were found to be floating free in the uterine body in anterior longitudinal presentation along with unilateral knee flexion.

Treatment and Discussion

The animal was restrained in left lateral recumbency, following epidural anesthesia (4ml, 2% lignocain HCL) and thorough lubrication of birth canal with liquid paraffin, thereafter correction of knee flexion and head deviation, traction was applied on fore limb and head, dead male fetus was delivered. The cow was treated with antibiotic and supportive therapy and recovered uneventfully.

Fig. 1: Calf with atypical schistosomus reflexus showing extreme evisceration, absence of left fore limb and without any curvature of spine

On close observation of fetus it was found to be a case of atypical schistosomus reflexus. The ventral thoraco-abdominal wall revealed a midline cleft, resulting

in exposure of both thoracic and abdominal viscera. The left fore limb was absent and rest limbs were ankylosed (Fig. 1). Diaphragm was found to be lacking. Fetal head revealed a mild hydrocephalus (Fig. 2) condition with a prominent mandibular prognathism (Fig. 2). However in the present case the typical ventral curvature of spine was lacking (Fig. 1).

Fig. 2: Mandibular Prognathism

Fig. 3: mild degree of Hydrocephalus

The exact cause of such teratological defects is still unclear but the preliminary analysis of associated cases suggests that schistosomus reflexus has a genetic aetiology (Laughton *et al*., 2005). Murine gene mutations producing severe ventral body wall defects associated with anomalies of internal organs and other structures have been implicated in causing this condition (Licvet and Licvet, 2008). The lateral edges of the somatic disk in the developing embryo curve upwards instead of downwards, leading to this anomaly. The overall incidence of SR among all dystocias known to occur in cattle may be as low as 0.01% (Sloss and Johnston, 1967) to a maximum of 1.3% (Knight, 1996). The fetal calf lacking the typical ventral curvature of spine does not meet the criteria of being considered as a typical case of schistosomus reflexus (Singh *et al*., 2010) as like in present case.

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