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Successful Management of Dystocia due to Schistosomus Reflexus Fetus in a Cow

Rishi Kumar Gupta, Vipin Singh, Vikas Sachan, Jitendra K. Agrawal and Atul Saxena

Department of Veterinary Obstetrics and Gyaenocology

College of Veterinary Science and Animal Husbandry

DUVASU, Mathura (UP) 281001

Corresponding Author: rishiguptatbt@gmail.com

Schistosomus reflexus is a rare type of congenital fetal monstrosity commonly seen in cattle and occasionally in other species (Knight, 1996). It is characterized by spinal inversion either dorsoflexion or retroflexion of vertebral column with or without ankylosis and exposure of abdominal and some time thoracic viscera (Denis and Meyer, 1965; Cavalieri and Farin, 1999; Ozcan *et al.,* 2003). The condition belongs to the family of defects involving incomplete closure of ventral body wall (Sacchan *et al.,* 2013). The incidence ranges from 0.01% (Sloss and Johnston, 1967) to 1.3% (Knight, 1996) of bovine dystocia. The cases that display both visceral exposure and spinal inversion are considered as true schistosomus reflexus (Roberts, 1971).

Case History and Clinical Observations

A six year old pluriparous full term pregnant cow in her 3rd parity was presented to Teaching Veterinary Clinical Complex, DUVASU, Mathura, with history of severe straining since last eight hour following the rupture of water bag and no progression in parturition. Gynaeco-clinical examination revealed that all four limbs were directed outside, while mutation and repulsion of monster was not possible due to lack of space along with postural abnormality. Therefore it was difficult to solve dystocia per-vaginally with forced traction or with fetotomy. Hence, it was decided to perform caesarean section to deliver the fetus.

Figure: Schistosomus reflexus fetus

Treatment and Discussion

The caesarean-section was performed with ventrolateral oblique incision in the left lower flank under local infiltration (2% lidocaine hydrochloride) and peri-operative fluid therapy (4 litres of Dextrose

normal saline i/v, 3 litre of Ringer lactose i/v), antibiotic (4.5 g of ceftriaxone-tazobactam i/v, Intacef-Tazo), 100 mg chlorpheneramine maleate IM (avillin), analgesic 15 ml meloxicam (melonex), 10 ml multivitamin injection (Tribivet) were administered. A dead female monster calf (Figure 1) was removed in which detailed observed findings were similar to that of the typical schistosomus reflexus as reported by other workers (Leipold and Dennis, 1986). The animal was kept under post-operative treatment for four days in-patient unit of the hospital.

In Schistosoma reflexus, the structural deformity makes such cases more difficult to handle. The aetiology of Schistosoma reflexus is unknown but it may be due to genetic factors, infectious agents and environmental factors or combination of all the factors (Noakes *et al.,* 2002). Since it has a genetic predisposition, so to control the occurrence of such condition the dam should not be mated with same sire again (Sacchan *et al.,* 2013). Such occurrence causes the loss of fetus, milk production as well as economic loss in fetal extraction (Leipold and Dennis, 1986). Per vaginal delivery of Schistosoma reflexus fetus was reported earlier through obstetrical mutation in cow (Selvaraju *et al*., 2013) as well as through caesarean section (Azawi *et al*., 2012).

Such type of cases are difficult to handle per vaginally by using forced traction because bony projections of the fetus may cause rupture of uterus or injury in the birth canal which may lead to secondary complications, therefore cesarean section is better alternative, as done in the present case.

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