



ISSN: 2456-2912

VET 2024; 9(2): 586-587

© 2024 VET

www.veterinarypaper.com

Received: 08-12-2023

Accepted: 16-01-2024

Somnath MN

Undergraduate Student,
Rajiv Gandhi Institute of
Veterinary Education and
Research, Kurumbapet,
Puducherry, India

Ketan

Undergraduate Student,
Rajiv Gandhi Institute of
Veterinary Education and
Research, Kurumbapet,
Puducherry, India

M Prasanth Kumar

Postgraduate Student,
Rajiv Gandhi Institute of
Veterinary Education and
Research, Kurumbapet,
Puducherry, India

K Murugavel

Professor, Department of
Veterinary Gynaecology and
Obstetrics, Rajiv Gandhi
Institute of Veterinary
Education and Research,
Kurumbapet, Puducherry, India

S Kantharaj

Professor and Head,
Department of Veterinary
Gynaecology and Obstetrics
Rajiv Gandhi Institute of
Veterinary Education and
Research, Kurumbapet,
Puducherry, India

Corresponding Author:

K Murugavel

Professor, Department of
Veterinary Gynaecology and
Obstetrics, Rajiv Gandhi
Institute of Veterinary
Education and Research,
Kurumbapet, Puducherry, India

Per-vaginal delivery of Schistosomus Reflexus fetus in a crossbred Jersey cow: A case report

Somnath MN, Ketan, M Prasanth Kumar, K Murugavel and S Kantharaj

Abstract

A five-year-old pluriparous pregnant cow which completed the gestation period was brought to large animal unit of the VGO ward, VCC with a history of rupture of water bag eight hours before, followed by unproductive straining with visceral content seen handing from the vaginal passage. Detailed examination per-vaginum revealed that the fetus was in dorso-sacral position, with its head in the birth canal and limbs extending cranially in ventral presentation. Based on clinico-gynaecological investigation, the case was tentatively diagnosed as Schistosomus Reflexus. With traction on the head and forelimbs, a female Schistosomus Reflexus monster was retrieved per-vaginally along with its fetal membranes and visceral contents. Following supportive therapy, the dam had uneventful recovery.

Keywords: Dystocia, Schistosomus reflexes, Ventral presentation

Introduction

Schistosomus Reflexus is a fetal monster which was reported commonly in cattle with comparatively less occurrence in sheep, goat and pigs but never in other species^[1]. It is an embryonic genetic defect and previous reports suggested that it occurs due to inheritance of autosomal recessive gene with incomplete penetration^[2]. This fetal congenital malformation is characterized by a severe ventral bending of the spine, ankylosed limbs, malformed pelvis and the abdomen and chest wall bent laterally with exposed viscera from both thoracic and abdominal cavities^[1]. The occurrence of Schistosomus Reflexus in cattle ranged from 0.01% to 1.3%^[3-4] of bovine dystocia. The Schistosomus Reflexus fetus causes dystocia because of the distinctive malformed vertebral column and skeletal system while the body weight of the monster may not be as much of the normal calf^[5]. Dystocia due to Schistosomus Reflexus monsters is generally relieved by partial fetotomy or caesarean operation. The present paper describes a case of dystocia due to Schistosomus Reflexus monster in a cross-bred Jersey cow and its successful delivery per-vaginal. In the present case, as the head was in the birth canal and limbs were accessible (ventral presentation) the monster have been delivered per-vaginally by mutational operation followed by application of traction with plentiful lubrication.

Case history and observation

A five-year-old crossbred Jersey cow which has completed the gestation period was brought to the large animal ward of Obstetrics, VCC, RIVER, Puducherry with a history of rupture of water bag eight hours before followed by unproductive straining for delivery. Clinical examination indicated normal vital parameters. The animal was standing when presented, with fetal intestines protruding through the vulva (Fig.1). Following sufficient lubrication, per-vaginal examination was done to evaluate the status of the fetus. On per-vaginal examination, fetus was in dorso-sacral position with its head in the birth canal and limbs extended cranially, in ventral presentation with exposed thorax. Based on the clinico-gynaecological investigation, the case was tentatively diagnosed as dystocia due to Schistosomus Reflexus.

Treatment

It was decided to give epidural anaesthesia to the animal in order to restrain it and assess the dam's excessive straining. About 3 ml of Inj.2% Lignocaine HCL was injected at sacro-coccygeal site of the dam.

Per-vaginal examination revealed that the cervix was fully dilated and the fetus was in ventral presentation with head in birth canal and limbs extended cranially. The fetal membrane over the limbs was split apart and by mutation, one of the limb was brought into the birth canal. Snare was applied over the limbs and long William's obstetrical blunt hook was applied on the inner canthus of the eye of fetus. The vaginal passage was well lubricated with liquid paraffin. By applying traction in a steady and even manner and cupping the bony eminence to prevent possible uterine tear, a dead female fetal monster was delivered per-vaginum. The monster was diagnosed as a case of Schistosomus Reflexus as per the classification of teratological defects given by Roberts (1986). Clinically, the cow was treated with NSAID (Inj. Meloxicam @ 0.3 mg/Kg im), anti-histamine (Inj. Chlorpheniramine maleate @ 0.3 mg/Kg im) and Inj. Calcium borogluconate (450 ml, slow i/v). The dam had an uneventful recovery.

Discussion

A thorough examination of the fetus showed ankylosed and rigid fetal limbs with distinct bend of the vertebral column and head laying over the sacrum. Both the cavities of thoracic and abdominal were open and visceral organs like stomach, intestine, omentum, kidney, liver and spleen were exposed (Fig.2). The visceral organs were normal in shape and size. The deformed ankylosed fetal limbs created bigger fetal diameter and thus preventing the normal vaginal delivery of the fetus. In an earlier study over a period of twenty years, Knight (1996) reported that among 90 cases of Schistosomus Reflexus attended, 56.7% were treated by performing fetotomy, 25.6% by caesarean section operation and 3.3% by applying simple traction. Treatment of the remaining 14.4% cases was considered hopeless, mainly because of the emphysematous condition of the fetus and the contaminated condition of the dam, which gave a poor or grave prognosis. Schistosomus Reflexus presents by its extremities (dorsal presentation), excessive fetal diameter together with the ankylosis of joints prevent natural or manipulative delivery per-vaginum and the malformed fetus is not likely to be removed by conventional methods, and can be removed from the uterus by full or partial fetotomy or cesarean section operation [5]. However, it was reported that Schistosomus Reflexus monster fetus could be delivered by mutational operation and forced traction with sufficient lubrication, if the fetal is small in size and present in ventral presentation [6].



Fig 1: Visceral contents protruding through the vulva of the dam



Fig 2: Schistosomus Reflexus monster

Conclusion

From the present report, it can be concluded that Schistosomus Reflexus monster in ventral presentation can be removed per-vaginum through judicial obstetrical procedures such as application of traction with sufficient lubrication.

Acknowledgement

The authors are thankful to the Dean, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry for providing necessary facilities for carrying out the present work.

Conflict of Interest

The authors declare no conflict of interest.

References

1. Roberts SJ. Diagnosis and treatment of various types of dystocia. In: Veterinary Obstetrics and Genital Diseases. Edn 3, Ithaca, New York; c1986. p. 335-336.
2. Laughton KW, Fisher KRS, Halina WG, Partlow GD. Schistosomus Reflexus Syndrome: A Heritable Defect in Ruminants. *Anatomy Histology Embryology*. 2005;34(5):312-318.
3. Sloss VE, Johnston DE. The cause and treatment of dystocia in beef cattle in western Victoria. *Australian Veterinary Journal*. 1967;43:13-21.
4. Knight RP. The occurrence of Schistosomus Reflexus in bovine dystocia. *Australian Veterinary Journal*. 1996;73:105-107.
5. Hemalatha H, Murugavel K, Kantharaj S, Antoine D, Raju MS. Dystocia due to Schistosomus Reflexus in cattle - A report of three cases. *Indian Veterinary Journal*. 2018;95(4):53-55.
6. Krishnakumar K, Napoleon RE, Manokaran S, Ravikumar K, Jayakumar K, Jegadeeswaran A, *et al*. Dystocia due to Schistosomus Reflexus in a Jersey crossbred heifer. *Indian Veterinary Journal*. 2012;89(6):79-81.