Short Communication

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Surgical Management of Dystocia due to Schistosomus Reflexus in a Non-Descript Goat

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ABSTRACT

A pluriparous full term pregnant non-descript goat was presented with a history of showing parturition signs for the past 12 hours. Fetal delivery was attempted by a local paravet but failed to relieve the dystocia. During admission, the animal was having occasional straining with exposed abdominal viscera of the fetus through the birth canal. The general clinical parameters were within the normal range. Vaginal examination revealed that the fetal mal-disposition with abnormal shape which was suggestive of a fetal monster. The attempted mutation and forced traction were unsuccessful, necessitating a caesarean section. During the procedure, a true Schistosomus reflexus fetus was delivered. The doe was treated with parenteral antibiotics, anti-inflammatory drugs, antihistamines, ecbolics and supportive therapy for five days, leading to an uneventful recovery without complications.

Keywords: Schistosomus reflexus, Non-descript goat, Caesarean section.

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INTRODUCTION

Schistosomus reflexus is a rare case of foetal monstrosity observed in sheep and goats, but commonly seen in cattle (Sarath *et al.,* 2021). It is characterized by the presence of exposed thoraco-abdominal viscera (Schistosomus) and acute angulation of vertebral column (reflexus) i.e., spinal inversion either dorsiflexion or retroflexion with or without ankylosis, and the tail lies close to the head (Ozcan *et al.,* 2003). The monsters displaying both visceral exposure and spinal inversion are considered to be true Schistosomus reflexus. Furthermore, the anterior and lateral positioning of the pelvic bones, sacrum and hind limbs, fissure of the thoracic and abdominal walls and limb ankylosis may be observed. Fetotomy or caesarean section is mandatory for delivery of a fully grown schistosomus reflexus monster fetus; while, per-vaginal expulsion without any obstetrical assistance is noticed in small sized monster fetuses (Kalita *et al.,* 2004). The present paper describes management of dystocia due to Schistosomus reflexus through caesarean section in a non-descript goat.

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CASE HISTORY AND OBSERVATIONS

A four year old full term pregnant non-descript goat in her third parity was presented to the Large Animal Obstetrics Unit, Veterinary Clinical Complex, Veterinary College and Research Institute, Salem, Tamil Nadu, India with the history of labour signs since 12 hours and water bag has ruptured 6 hours back. The manipulation was attempted by local paravet but failed to relieve the dystocia. The clinical examination revealed protrusion of fetal viscera like stomach, intestines, liver, pancreas and spleen out of vulva (Fig.1). The perineal region was cleaned with 0.1% potassium permanganate solution and caudal epidural anaesthesia was given to prevent the straining. On vaginal examination, the vaginal passage was dry and moderately edematous. The fetus was in mal-disposition with abnormal shape noticed. Based on the examination of the fetus and radiographic findings (Fig.3), the condition was diagnosed as Schistosomus reflexus, which was identified as the cause of dystocia. Hence, the case was diagnosed as dystocia due to fetal monster and warranted caesarean section to deliver the abnormal fetus.

Fig. 1: Foetal viscera exposed outside from the vulval lips of doe

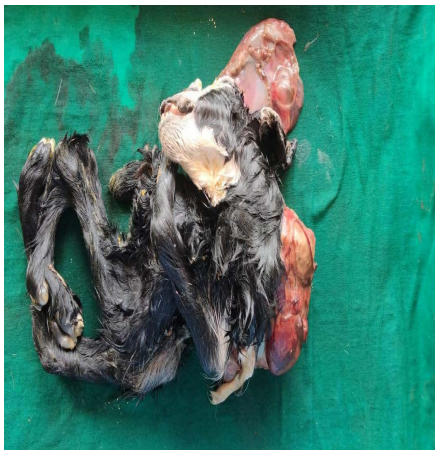

Fig. 2: Foetal Schistosomus reflexus

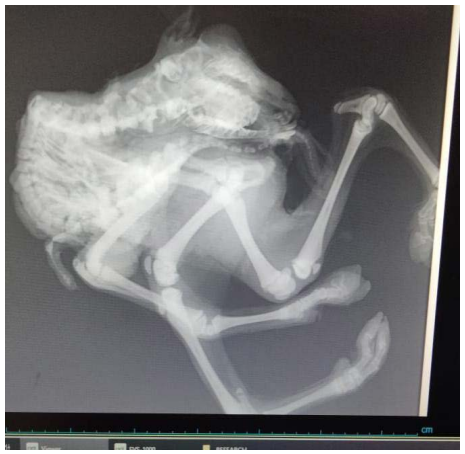

Fig. 3: Radiographic image of schistosomus reflexus

TREATMENT AND DISCUSSION

The caesarean section was performed as per standard procedure by the method of left flank ventro-lateral (Oblique) approach and monster foetus was removed through uterine incision. On gross examination of fetus, marked ventral curvature of spinal column, completely ankylosed forelimbs and hindlimbs, fetal head approaches towards the sacrum, exposed abdominal visceral organs, incomplete closure of abdominal and thoracic muscles was observed and the foetus completely looked like a "Half Moon" appearance (Fig. 2). Post-operative care included administration of 150 ml of 5% Dextrose normal saline and 5 ml of Calcium gluconate intravenously, Inj. Ceftriaxone 5 mg/kg., Inj. Flunixin meglumine @1.1 mg/kg body weight and Inj. Chlorpheniramine maleate @ 0.5 mg/kg intramuscularly for 5 days. The sutures were removed on the 10th day post-surgery. The animal had uneventful recovery.

Schistosomus reflexus is a rare congenital fetal monstrosity commonly seen in cattle and occasionally in other species (Knight, 1996). The presence of exposed thoraco-abdominal viscera (Schistosomus) and acute angulation of vertebral column (reflexus) i.e., spinal inversion either dorsiflexion or retroflexion with or without ankylosis, and tail lies close to the head (Ozcan *et al.,* 2003). The monsters displaying both visceral exposure and spinal inversion are considered to be true (Roberts, 1971). Furthermore, the anterior and lateral positioning of the pelvic bones, sacrum and hind limbs, fissure of the thoracic and abdominal walls, and limb ankylosis may be observed. These fetal monsters will cause dystocia with their free-floating viscera, four limbs and head all together, presenting in the cervical canal (Jana and Ghosh, 2001). Per-vaginal delivery of Schistosomus reflexus monster fetus in goat was reported by Suthar *et al.* (2001), Brijesh *et al.* (2016), Arundhathi *et al.* (2020) and Jadhao *et al.* (2021). Serious postoperative complications may arise due to severe disorientation and acute angulation of the fetal spine with lack of vaginal space from the dam. Small sized Schistosomus reflexus monster fetus can be expelled through per vaginum without any obstetrical assistance while, fully developed monster feus may be delivered through complete or partial fetotomy or C-section (Sarath *et al.,* 2021). However; in the present case, fully grown schistosomus reflexus foetal

monster could not be delivered per-vaginum and the case was successfully managed through a caesarean section.

CONCLUSION

The present case paper reports a rare case of dystocia due to Schistosomus reflexus foetal monster in a non-descript goat and its successful surgical management.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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