

PER-VAGINUM HANDLING OF DYSTOCIA DUE TO
Schistosoma reflexus PLURIPARUS IN MURRAH BUFFALO

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ABSTRACT

A pluriparus full-term exhausted Murrah buffalo aged about 8 years, in its 3rd parity escorted to the TVCC, College of Veterinary Science and Animal Husbandry, ANDUAT, Ayodhya, India, with history of straining since last 12 h. On per vaginum examination, this case was diagnosed as dystocia because of true *Schistosoma reflexus*. A successful per-vaginal management of dystocia due to *Schistosomus reflexus* monster by traction and mutation is performed.

Keywords: *Bubalus bubalis*, buffaloes, Murrah, mutation, *Schistosoma reflexus*

INTRODUCTION

Schistosoma reflexus, a fetal monstrosity primarily was seen in cattle whereas rarely observed in sheep, goat and in other species (Roberts, 1971). The incidence rate of this anomaly is recorded as 0.01 to 1.3% (Knight, 1996; Kumar *et al.*, 2019). *Schistosoma reflexus* causes dystocia because of the changes within the shape

of the foetus. The vertebral column is inverted in a condition that the cranial and distal ends of the body are in close proximity. This congenital anomaly commonly expresses during embryonic development of the foetus. The explicit etiology of *Schistosoma reflexus* is unclear but it would be result in genetic factors, chromosomal anomalies, mutation, infectious agents, and environmental factors or combination of all the factors (Noakes *et al.*, 2002).

CASE HISTORY AND CLINICAL
OBSERVATIONS

A pluriparus full-term exhausted murrah buffalo aged about 8 years, in its 3rd parity escorted to the TVCC, College of Veterinary Science and Animal Husbandry, ANDUAT, Ayodhya, India, with history of straining since last 12 h. Clinical observation, the fetal abdominal viscera were protruding out of the vulva (Figure 2). The cervix was completely dilated with ventro-transverse presentation of fetus were observed during per-vaginal examination. Besides, fetal intestine was felt by hand on per-vaginal examination and

exposed visceral organs were palpable through an incompletely closed ventral body wall. Thus, the case was diagnosed as dystocia because of true *Schistosoma reflexus*.

Gross examination of the fetus (Figure 1) revealed that each joint of fetal hind limbs was rigid together with entirely exposed visceral organs. The fetus had characteristic ventral curvature of the backbone and head was resting over the sacrum. The fetus was diagnosed as a case of *Schistosoma reflexus* with teratological defects (Roberts, 2004). Congenital anomaly occurs due to post-gastrulation embryo with a collusion of the intermediate mesoderm. This fetal anomaly was reported due to a complex of abnormalities associated with incomplete closure of the ventral body wall that appears it inside-out calf, deformities of skeleton and inversion of spinal canal. The true *Schistosoma reflexus* is only contemplated to bound up with both visceral exposure and spinal inversion (Laughton *et al.*, 2005). *Schistosoma reflexus* monster fetus mostly delivered by caesarian section (Roberts, 2004) or fetotomy presently, in this case, calf was delivered per-vaginum because of large size of pelvic girdle of pluriparous buffalo.

TREATMENTS AND DISCUSSION

Before starting the Obstetrical maneuver, epidural anaesthesia (2% Lignocaine hydrochloride-5 ml) and proper lubrication of the uterine cavity with lukewarm liquid paraffin were carried out. After correcting presentation and posture, fetus was delivered per-vaginum by force extraction. The removed fetus was malformed with marked ventral curvature of spine, lateral bending of fetal body and chest wall exposing abdominal

viscera with deformed pelvis and ankylosis of joints (Figure 1) and was recognized to be a case of true *Schistosoma reflexus* monster. Therapeutic management post-dystocia of buffalo was treated with parental administration of antibiotic, analgesic, antihistaminic and fluid therapy. It occurs mainly due to transfer of autosomal recessive gene having incomplete penetrance to developing embryo (Laughton *et al.*, 2005) and frequently noticed in cattle and buffaloes (Padma Rao *et al.*, 1993; Srivastava *et al.*, 1998). The defective fetus is not likely to be expelled usually by mutational methods and must be removed from the uterus either by fetotomy or c-section. Spontaneously, small size *Schistosoma reflexus* monster could be delivered by judicious obstetrical maneuvers like application of traction with plentiful lubrication of passageway with lubricants (Jana and Jana, 2013).

However, complicated, and irregular anatomy requires caesarean section so as to securely remove the fetus (Newman, 2008). Knight (1996) observed that among 6901 cases of bovine dystocia, 90 (1.3%) were caused by *Schistosoma reflexus*, out of which 56.7% cases were treated by fetotomy, 25.6% by C-section, 3.3% by simple force traction and none of the case reported with normal delivery. If true *Schistosoma reflexus* presents with ankylosis of joints than it generates excessive fetal diameter and prevents per-vaginum delivery (Noakes *et al.*, 2009). The monsters are often corrected either by obstetrical mutation (Kumar *et al.*, 2019), fetotomy or caesarean section (Chakraborty *et al.*, 2011). Partial fetotomy of the fetal parts is usually performed (Singh *et al.*, 2018) if the spinal curvature is acute and thus preventing passage of the fetus through the per-vaginum. If fetotomy is not imaginable, a caesarean operation is that the only way to deliver *Schistosoma reflexus* (Newman, 2008; Dutt *et al.*, 2019; Kumar *et al.*,



Figure 1. Schistosoma reflexus Murrah buffalo calf with dorsal flexion of spine and exposed abdominal viscera.



Figure 2. Murrah buffalo with fetal abdominal viscera exposed through per vaginum.

2020). The present case describes successful per vaginal delivery of *Schistosomus reflexus* monster in a Murrah buffalo by traction and mutation techniques.

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