

CASE REPORT

**MUMMIFIED *SCHISTOSOMUS REFLEXUS* CO-TWINNED WITH
NORMAL GOAT FOETUS –A RARE CASE REPORT**

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Abstract: A local-non descriptive goat of 3 years old was having a full term pregnancy along with the history of kidding commenced the night before presentation. Per vaginal examination revealed fetus in anterior presentation, dorso-sacral position with lateral deviation of head, which confirmed that it was the case of fetal dystocia due to lateral deviation of head. At the time of relieving dystocia, some another small sized, deformed type of fetal mass was found palpable in the birth canal, which was then removed and surprisingly observed that it was a case of mummified *Schistosomus reflexus* foetus co-twinning with the normal developed foetus.

Keywords: *Schistosomus reflexus*, goat, mutation, traction, mummified.

I. INTRODUCTION

Schistosomus reflexus foetuses have severe ventral curvature of the spinal column, the body walls are bent laterally and dorsally, the limbs are usually ankylosed, and the viscera are exposed (Roberts,1986). However only the cases that display both visceral exposure and spinal inversion are considered as true *Schistosomus reflexus* (Laughton *et al.*,2005). The aetiology is unknown but it may be due to genetic factors, mutation, chromosomal anomalies, infectious agents and environmental factors or combination of all the factors (Noakes *et al.*, 2002). These abnormalities suggest SR occurs as early as the post-gastrulation embryo and involves the intermediate mesoderm (Mukasa and Bekele.,1989). Fetotomy or caesarean section is mandatory for delivery of a fully grown *Schistosomus reflexus* monster while, per-vaginal expulsion without any obstetrical assistance is noticed in small sized monster fetuses (Kalita *et al.*,2004). Likewise the presence of an apparently normal twin fetus associated with a *Schistosomus reflexus* fetus has been reported in goats (Ayyappan *et al.*,1992). A successful per-vaginal management of fetal dystocia due to bilateral carpal flexion posture co-twinning with the *Schistosomus reflexus* mummified foetus in a doe is placed on record.

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II. HISTORY & CLINICAL OBSERVATIONS

A pluriparous goat of 3 years old with the history of having full term pregnancy as per the owner was presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur. All the critical signs were within normal range during general clinical examination. The process of kidding commenced the night before presentation to the hospital. Physical examination revealed that, the goat had tachycardia with pale mucous membrane. The goat was weak and in a recumbent position. It was straining, restless with continuous bleating along with anorexia from last 2 days. During per vaginal examination cervix was fully dilated, foetid reddish gray discharge was found with vulval oedema. Fetal presentation was found as normal presentation with anterior, dorso-sacral position with lateral deviation of head. Foetus was dead and based on per vaginal examination the condition was diagnosed as fetal dystocia due to lateral deviation of head.

III. TREATMENT

On per vaginal examination, foetus was found in normal anterior presentation, normal dorso-sacral position with abnormal posture with lateral deviation of head. The animal was given caudal epidural anaesthesia, using 2.5 ml of Lignocaine hydrochloride (2%) for the prevention of pain and defecation during traction and ample of lubrication was done with the help of Sodium Carboxyl methyl cellulose gel and deviation of head was corrected with the help of manipulation technique. But, at the time of relieving dystocia, some another small sized, deformed type of fetal mass was found palpable in the birth canal which was removed per vaginally, and surprisingly observed that, it was a mummified foetal *Schistosomus reflexus* co-twinning with the normal developed foetus. One dead female foetus was then removed per vaginally by applying traction on head and forelimb. Therapeutic management was done parentally and the goat was treated with antibiotic, analgesic and antihistaminic in prescribed doses with 2 intrauterine Furea bolus. The animal showed successful recovery.

IV. DISCUSSION

The removed fetus was small sized malformed mummified with marked ventral curvature of spine, lateral bending of fetal body and chest wall exposing abdominal viscera with deformed pelvis, The congested abdominal viscera viz. stomach, lungs, intestines, liver etc. were protruded out of the abdominal cavity and was diagnosed to be a case of true *Schistosomus reflexus* (Figure 2). The condition is commonly marked by incomplete closure of the ventral body wall often presenting as mummification and monstrosity. Majority of congenital anomalies are reported to be related to genetic factors, mutations, chromosomal anomalies,

infectious agents, and environmental factors or the combination of all the factors listed (Tsuma, 2008). A reported case of foetal mummification in goats, where out of three foetuses two were mummified and another one was completely developed and viable one (Doijode,1993). In the present study, only one schistosoma reflexus foetus was mummified and another one was completely developed, but it was found dead because of the lateral deviation of head (Figure 2). Tutt (1991) reported that, the foetal mummification is rare in goat but appears to be more common in twin pregnancy which was in agreement with the present case.

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Fig.1- Mummified Schistosoma reflexus foetus co-twinning with



Fig.2: Mummified Schistosoma reflexus foetus