

Successful Management of Fetal Mummification in A Goat

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Abstract

The present clinical article reports per-vaginal delivery of mummified fetus in a doe. Diagnosis of the case was made on the basis of the clinical signs, per vaginal examination followed by delivery of fetus by gentle traction.

Keywords: Doe, Mummified fetus, Per-vaginal delivery

Introduction

Fetal mummification is uncommon in domestic animals moreover in small ruminants it rarely occurs (Roberts 1971). In small ruminants the condition is often associated with few diseases i.e. toxoplasmosis, Chlamydomphila, border disease, and Coxiella infection (Edmondson *et al.*, 2012). Apart from infectious agents, malnutrition including energy and protein deficiency can also be a predisposing factor in causing mummification in sheep and goats (Braun WF Jr, 2007).

A 3 year old non-descript doe was admitted to Veterinary Clinical Complex, Bihar Veterinary College with a history of delivery of a kid before completion of gestation period, since then the doe showed frequent straining at regular interval without yielding. The doe appeared lethargic, dull and depressed. The clinical parameters were near normal i.e. temperature 103°F, pulse rate 74/minutes, respiration 18 breaths/minutes and heart rate 97 beats/minutes. Lubricated gloved fingers (hand) revealed open cervix with scanty lubrication at birth canal. Abdominal radiographic examination further explored fetal presence, however ultrasonography evaluation showed fluid less solid mass within the uterus, thus the case was primarily diagnosed as fetal mummification.

Therapeutic management was initiated by administering 500 ml dextrose normal saline via intravenous route then per-vaginal infusion of liquid paraffin followed by intravenous administration of oxytocin at a rate of 5 IU in every 30 minutes for total 3 times. Two hour post treatment, a lubricated gloved hand inserted per-vaginum. The mass was held by crossing the fingers within birth canal and mild traction applied which yielded a dry and solid mass covered with chocolate coloured material with empty eye socket thus confirming the mass as mummified fetus. (Fig – 01) After removal of the fetuses, the doe was treated with broad spectrum antibiotic and non steroidal anti-inflammatory drugs for next 3 days. The doe recovered uneventfully



Figure 01 – Mummified goat fetus

The process of mummification is complex phenomena which involves death of fetus post ossification followed by rapid absorption of fetal fluid moreover closed cervix limits the oxygen availability within uterus thus limiting putrefying bacterial population, furthermore the

intact endometrium checks microbial entry via hematogenic route (Kumar and Saxena 2018;Kumar *et al.*, 2018a)

Dystocia i.e. difficult parturition may occur due to maternal or fetal cause (Kumar *et al.*, 2018b; Kumar *et al.*, 2019; Kumar and Saxena, 2020). Mummification is an important contributor of fetal cause of dystocia (Kumar

et al., 2020). Etiology of mummification in sheep and goat mainly includes infectious cause. However Tut (1991), reported the mummification in goat and sheep is associated with twin pregnancies which is in agreement with our case. Unlike bovines and other domestic animals mummified fetuses in caprine and ovine are spontaneously aborted which is again in agreement with our case. An infected female often remains asymptomatic as this condition is sporadic in occurrence.

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