



Fetal Mummification in Goat: A Case Report

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ABSTRACT

A three year old non-descript goat in fourth parity was presented to the Veterinary Clinical Complexes, COVAS, Udgir with the history of straining and vaginal discharge for last four to five hours. One live male fetus was delivered through obstetrical maneuvers which followed the delivery of mummified fetus. The goat was treated with fluid therapy, antibiotics, NSAID and antihistamines.

Introduction

Fetal mummification in an uncommon and sporadic condition that affects the single as well as twin fetuses in small ruminants. The toxoplasmosis, Chlamydia, border disease, and Coxiella infection are mostly associated with the fetal mummification (LeFebvre, 2015). Energy and protein deficiency can also result into fetal mummification small ruminants (Pugh and Baird, 2012). The papyraceous mummification is the most common form in which the fetal death occurs in the middle or last third of gestation followed by failure of abortion, persistence of corpus luteum and resumption of fetal fluids. Besides, the fetal membranes are dried, shrivelled and there is an involution of maternal placenta. Fetal mummification occurs in some embryos without affecting the others, thus pregnancy continues for the term (Roberts, 1986). The incidence of fetal mummification is more in goats with twin or triplet pregnancy and the major cause for fetal mummification is inadequate nutrition (Mahajan et al., 2022). This

case report highlights the successful management of fetal mummification accompanied with live male fetus.

Case history and observations

A three-year-old doe in fourth parity was presented to the Veterinary Clinical Complex, Udgir with the history of straining for last four to five hours and reddish vaginal discharge. According to the history, the doe was about four and half months pregnant. There was no engorgement of udder and also sacro-sciatic ligaments were not relaxed which confirmed that the goat was presented before the full term.

Upon per-vaginal examination with proper lubrication, it was observed that the cervix was fully dilated and the fetal forelegs were palpable. Upon further examination it was revealed that, the neck of the fetus was deviated laterally towards the right side. Based on gynecological examination it was tentatively diagnosed as the case of distorsion due to fetal maldisposition.

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Fig. 1. Mummified fetus

Treatment and discussion

The fetus was in anterior longitudinal presentation, dorso sacral position and right lateral deviation of the head. After correcting the fetal posture with obstetrical mutation technique, a live male fetus was delivered with gentle traction. Immediately after delivery of live fetuses, another dead fetus with intact placental membranes was delivered spontaneously. After detailed examination of placental membranes, the dead fetus was confirmed as a mummified one.

The doe was then treated with i.e. Inj. Dextrose @ 250 ml and Lactated Ringer's solution @ 250 ml, Ceftriaxone and Tazobactam @ 15 mg/kg body weight intravenously, Inj. Meloxicam @ 0.5 mg/kg body weight, Inj. Chlorpheniramine maleate @ 0.2mg/kg body weight and Inj. Oxytocin @ 1 ml intramuscularly. Also, the two uterine cleansing bolus containing Nitrofurazone and Urea were kept intrauterine and oral uterine tonics were advised. The supportive therapy and antibiotic treatment were continued for three days and the doe recovered uneventfully.

The findings of this case study suggest that, the retention of the mummified fetus must be due to another live fetus and the persistent corpus luteum. Also, the mummified fetus has not affected the livability of the other co-twin fetus similarly reported by Hemlata et al. (2018). Rautela et al. (2018) reported fetal mummification in all the three fetuses at different developmental stages. Prolongation of gestation period due to lack of stimulation of the hypothalamic pituitary adrenal axis may also take



Fig. 2. Healthy dam along with live male and mummified fetus

place (Mahajan et al. (2022). Early diagnosis of fetal mummification requires the use of radiography or ultrasonography. The definitive diagnosis of the fetal mummification is based on demonstration of placental membrane and isolation of infectious agent. Serological examination and PCR technique can be used for confirmatory diagnosis (LeFebvre, 2015). The cases in which the spontaneous expulsion is not initiated, the drugs causing lysis of corpus luteum are given, while the future fertility of such cases is good.

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