Case Report

FETAL MUMMIFICATION AMONG A QUADRUPLET IN KANNI ADU DOE

S. Alagar[1], S. Satheshkumar*[2], S. Raja[3] and S. Prakash[4]

Department of Veterinary Gynaecology and Obstetrics
Veterinary College and Research Institute
Orathanadu, Thanjavur - 614 625

ABSTRACT

A case of fetal mummification among one of the quadruplet kids was reported in a fourth parity Kanni adu doe.

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INTRODUCTION

In polytocous species such as swine and canine, mummified fetuses have been reported alongside the simultaneous presence of normally developed fetuses. However, such occurrences are rarely documented in small ruminants (Roberts, 1986; Alagar *et al.,* 2016; Anil *et al.,* 2017). Prolongation of the gestation period is a common complication associated with foetal mummification in large ruminants and equines. Nevertheless, mummified fetuses in sheep and goats typically undergo spontaneous abortion or manifest as a cause of dystocia (Lefebvre *et al.,* 2009). The present report documents an instance of fetal mummification within a quadruplet in a Kanni adu doe.

[1]Assistant Professor

[2]Professor and Head, Corresponding author Email id: drsatheshkumar6@rediffmail.com

[3]Assistant Professor, Department of Clinics, Veterinary College and Research Institute, Namakkal - 637 001

[4]Assistant Professor

CASE DIAGNOSIS AND TREATMENT

A fourth parity Kanni adu doe (fourth parity) was presented to the Obstetrics Unit of the Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu. The doe was presented with the history of straining and a prolapsed mass after giving birth to two live female kids. Upon physical examination, an allantoic sac was observed hanging out of the vaginal passage (Fig. 1). Per-vaginal examination revealed that a fetus with a normal presentation and position but with a defective posture (ventral deviation of the head with unilateral right-side carpal flexion) was lodged in the vaginal passage. In addition, a compact hard mass covered by placental tissue could be explored (Fig. 2). Under epidural anaesthesia, the dead fetus was delivered with gentle traction and the hard mass was extracted from the placenta. After

clearing the placental tissue, the hard mass was found to be a fetal mummy (Fig.3). Thus, a mummified fetus was reported alongside two live kids and one dead fetus in the goat. Injection Oxytocin (10 IU; IV) and Dextrose normal saline (150 ml; IV) were administered.

The doe was treated with Enrofloxacin injection (@ 5 mg/kg BW; IM), Meloxicam injection (@ 0.02 mg/kg BW; IM) and Chlorpheniramine maleate injection (@ 1 mg/kg BW; IM), for three days, along with oral uterine ecbolic. With timely diagnosis and appropriate obstetrical intervention, the doe recovered uneventfully.

Fig.1.Prolapsed mass along with allantoic sac

Fig.2. Hard mass covered with placental tissue

Fig. 3. Mummified fetus along with the dead fetus

DISCUSSION

Fetal mummification and maceration are significant gestational disorders in farm animals, wherein the exact etiology and time of fetal death remain unknown (Dutt *et al.,* 2018). Fetal mummification is considered rare in goats but seems to be more associated with multiple pregnancies (Tutt, 1991). Although fetal mummification in twins and triplets has been reported earlier in non-descript goats (Hemalatha *et al.,* 2018; Bisla *et al.,* 2019), this is the first report on the incidence of a mummified fetus among a quadruplet in a doe. In small ruminants, fetal mummification is typically linked to infectious causes, nutritional deficiency (Edmondson *et al.,* 2012) and torsion of the umbilical cord (Mahajan and Sharma, 2002). While the exact cause of fetal death and subsequent mummification in the present case could not be precisely diagnosed, it is conceivable that more number of fetuses might have led to nutritional and spatial deprivation, resulting in the death of the particular fetus. Mahajan and Sharma (2022) reported that the incidence of fetal mummification is higher in multiple pregnancies and attributed it to inadequate nutrition to the specific fetus, a finding consistent with our observations.

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