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## Dystocia due to fetal mummification in non-descriptive goat: An investigation of live fetus challenges

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### Abstract

A 4 year old female Non descriptive goat was presented with history of abdominal staining, serosanguinous vaginal discharge and unable to deliver fetus were diagnosed and two mummified of one live male fetuses delivered per vaginally.

**Keywords:** Mummified fetus and Dytocia, fetus challenges, Bovine viral diarrhoea, border disease

### Introduction

Dystocia, or difficult lab or, is a significant concern in livestock management, including goats. While various factors can contribute to dystocia, one unusual and rare condition that can lead to this problem is fetal mummification. Fetal mummification occurs when the fetus dies during pregnancy but is not expelled from the uterus. In the case of non-descriptive goats, this condition can result in challenging and potentially life-threatening deliveries. One of the important gestational disease polytocous species is fetal mummification. During pregnancy fetus died in uterus with their fetal membrane after that the fetal fluid gradually absorbed becomes mummified fetus. (Vikram, R *et al.* 2020) [6]. In sheep and goat, Bluetongue, Chlamydothyla, toxoplasmosis, Bovine viral diarrhoea, border disease, and Coxiella infection can causes fetal mummification (Lefebvre, 2015) [2]. Fetal mummification tends to occur more frequently in pigs and cats with larger litters, often as a result of uterine overcrowding and inadequate placental function (Noakes *et al.*, 2009) [1].

### Treatment and Discussion

A 4 year old female Non descriptive goat was presented to Veterinary Clinical Complex, Veterinary College and Research Institute Theni with history of abdominal staining staining, serosanguinous vaginal discharge and unable to deliver fetus. On physical examination temperature, pulse rate, heart rate, mucus membrane and other vital parameters were within the normal range. On vaginal examination cervix fully dilated and small sized fetal head were in the vaginal passage. The perineal portion was thoroughly washed with 1% Potassium permanganate. After through lubrication fetal head were grasped and removed. One more mummified fetus was removed. After removal of two mummified fetus vaginal examination reveals one live fetus were in the uterus. After correction of bilateral shoulder flexion a live male fetus were removed per vaginally along with fetal membrane. The animal were treated with Injenrofloxacin 100 i/m, Meloxicam 4mg/Kg BW. Oral antibiotic, NSAID and oral ecbolec were given for five days. The animal made smooth recovery.

Gradual uterine and fetal shrinkage takes place as the placenta and fetal fluids are absorbed, resulting in the formation of a mummified fetus within the uterus. Sometimes cervix closed in hence the fetal mummification becomes sterile (Purohit and Gaur, 2011) [3].

In small ruminants, the mummified fetus is typically expelled per vaginum at the time of parturition. If one or more fetus are remains in uterus during kidding it is removed manually after careful examination with proper lubrication (Chauhan *et al.*, 2014) [4] or removed by caesarean section.

Curiously, the uteri of cattle and buffalo that are examined and cultured are generally expected to be sterile and free of microorganisms.

The endometrium undergoes involution and displays a healthy appearance, a fact further substantiated by the typical conception of cows during the subsequent ESTRUS cycle following the removal of the mummified fetus. Mummification is often associated with the presence of a well-developed corpus luteum. The treatment for fetal mummification commonly includes the administration of a PGF2 $\alpha$  injection, resulting in the expulsion of the mummified fetus within 2 to 4 days. In some case animals do not respond to the luteolytic agent which requires caesarean section (Bhuyan *et al.*, 2016) [7].

Recent cases involving mummified fetuses have shown limited responsiveness to treatment, and in such instances, Caesarean sections were performed as described by Bhuyan *et al.*, (2016) [7]. In specific scenarios where the uterus exhibits strong contraction around the mummified fetus, the caudal flank laparotomy method was deemed an appropriate choice for conducting a Caesarean section, a technique as utilized in the study by Lefebvre *et al.* (2009) [8]. The possibility of Spontaneous abortion of a mummified fetus is high but it requires assisted delivery of fetus per vaginally (Martha *et al.* 2017) [5]. In monotonous and polytocous species different types of fetal mummification can occur as they have different causative agents, clinical signs exhibited, treatment protocols, and prevention and control methods are different. (Vikram *et al.* 2020) [6]. Prospects for future fertility in the animals were positive, as they resumed cyclic behaviour within two months following the surgical operation. These findings are consistent with the results reported by Roberts (1986) [9].

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**Fig 1:** Female goat with two mummified foetus with one live fetus

### Conclusion

The present case had two mummified fetus which leads to the dystocia since the passage is blocking the normal viable fetus which causes difficult to deliver per vaginally, hence present case needed assisted delivery to save the life of remaining the fetus.

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