Short Communication

DOI: 10.48165/ijar.2025.46.02.18

The Indian Journal of Animal Reproduction
The official journal of the Indian Society
for Study of Animal Reproduction
Year 2025, Volume-46, Issue-2 (June)

ISSN 0970-2997 (Print)
ISSN 2583-7583 (Online)

Therapeutic Management of Foetal Mummification in a Jersey Crossbred Cow

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ABSTRACT

Fetal mummification in cattle is a rare event. Both therapeutics and surgical procedures can be utilized in its management. The present case report discusses the successful therapeutic management of hematic foetal mummification in a 5.5-year-old, pluriparous Jersey Crossbred cow.

***Keywords*:** Hematic, Foetal mummification, Jersey Crossbred cow.

How to cite: Tiwari, A. K., Thammanna, S. P., & Chauhan, S. A. (2025). Therapeutic management of foetal mummification in a Jersey crossbred cow. *The Indian Journal of Animal Reproduction, 46*(2),112-114.10.48165/ijar.2025.46.02.18

INTRODUCTION

The reported incidence of bovine fetal mummification is between 0.13-1.8% (Kumar and Saxena, 2018). Higher incidences are seen in Jersey and Guernsey breeds with recurrence (30%) in the those having experience of similar event in their previous gestation (Lefebvre, 2015). Fetal mummification in cattle occurs around 70 days of gestation after the stages of placentation and fetal ossification (Kumar *et al.,* 2018a). However, most commonly reported cases are between 3rd to 8th months of gestation (Kumar *et al.,* 2019). Fetal mummies in cattle are covered with a viscous brown colored sticky material and therefore, termed as hematic or chocolate mummification (Kumar and Saxena, 2018). Infectious (Leptospirosis, Bovine Viral Diarrhoea and *Neospora caninum* infections), non-infectious (uterine torsion, twisted or compressed umbilical cord, hormonal disturbances and chromosomal aberrations) as well as environmental conditions (drought and extreme weather) serve as etiological factors in cattle (Arunpandian *et al.,* 2024). Absence of fetal signal for parturition induction causes pregnancy to remain undisturbed (Noakes *et al.,* 2019). Resorption of amniotic and allantoic tissues post foetal death dehydrates the foetal tissues. The longer the foetus is retained in-utero, the dryer, firmer and leatherier it becomes.

CASE HISTORY AND OBSERVATIONS

A 5.5-year-old, Jersey Crossbred cow in its 3rd parity, near term was presented with no abdominal or mammary enlargement as well as visible signs of parturition over ges-

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Received: 30.08.2024 Accepted:14.03.2025

tation. All the physiological parameters were in normal range as rectal temperature (100.8 °F), heart rate (68 beats/minute), respiration (36 breaths/minute), normal palpable lymph nodes and pink conjunctival mucous membrane with no visible vaginal discharges. Per-rectal examination revealed a rounded hard mass with no evidence of foetal viability, placentomes, foetal fluids or fremitus. Per-vaginal examination revealed complete cervical closure with absence of any discharges. Based on the history and clinical findings the case was diagnosed as fetal mummification.

TREATMENT AND DISCUSSION

Upon presentation, the animal was normal physically and physiologically and did not exhibit any signs of discomfort. Treatment was attempted at dilating the closed cervix for per-vaginal foetal removal. The animal was administered with inj. Cloprostenol @ 500 mcg, inj. Valethamate bromide @ 50 mg, and inj. Dexamethasone @ 40 mg intramuscularly. Fluid therapy was administered with Ringer's Lactate and Normal saline (2 liters each, IV) and inj. calcium borogluconate 450 mL slow IV. Antibiotic (inj. enrofloxacin @ 5mg/kg, IM once daily for 5 days) and analgesic (inj. meloxicam @ 0.5 mg/kg IM once daily for 3 days) were administered. Monitoring of cervical dilatation by vaginal examination was done every 12 hours. On 3rd day post-therapy, brownish mucoid discharges were noticed from vulva. Vaginal examination revealed a resorbed foetal mass covered with foetal membranes. Subsequent delivery of the resorbed foetus was assisted using application of mild traction following lubrication of the birth canal using liquid paraffin (Fig. 1). Four boli of antimicrobial and antiseptic preparation containing urea 5000 mg, metronidazole 1000 mg and nitrofurazone 60 mg were placed intrauterine. Liquid Utrevive @ 100 mL twice daily PO for 5 days was administered. The cow recovered without any complications with visible estrus signs on 40th day post-partum. Sporadic occurrence of foetal mummification in bovines are reported both in exotic and Indigenous cattle breeds and their crosses (Jana and Ghosh, 2014). Dystocia may arise due to foetal or maternal factors and mummified foetus is one of example of foetal causes (Kumar *et al.*, 2018a). PGF2α analogues and Valethamate bromide are commonly used drugs for the expulsion of mummified foetus in cattle (Arunpandian *et al.,* 2024). Foetus lodged in vagina is extracted manually with mild traction (Lefebvre, 2015).

Fig. 1: Foetal mummy draped in dried foetal membranes.

CONCLUSION

Though being a rare event, foetal mummification in bovines, affects animal production and leads to economic loss to the farmers. Early diagnosis and management of the same can help optimize animal productivity. The present case report dealt with successfully addressing this obstetrical condition and consequent resumption of normal cyclicity with a therapeutic regimen.

CONFLICT OF INTEREST

None.

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