

## MANAGEMENT OF FOETAL MUMMIFICATION THROUGH LEFT FLANK CAESAREAN SECTION IN CATTLE

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### ABSTRACT

Mummification of the foetus is a rare gestational mishap that affects the majority of species of animals, including cows, with a rate of occurrence ranging from 0.13 to 1.8 per cent. The process of foetal mummification occurs about 70 days of gestation, after placentation and foetal ossification. However, the most common incidences of rd th were observed during the third to eighth month of pregnancy. Hematic mummification, is frequently referred to as chocolate mummification because a viscous brown-colored sticky substance covers the mummified foetus which is observed in cattle. A cow was presented to Veterinary Clinical Complex, (VCC), LUVAS, Hisar with history of prolonged gestation of 11.5 months and on per vaginal examination, cervix had one finger dilatation and hard in consistency with absorption of foetal fluids. The case was diagnosed as foetal mummification and mummified foetus was delivered by caesarean section through left flank.

**Keywords:** Caesarean section, Cow, Haematic, Mummification

### INTRODUCTION

Mummification of bovine foetuses is a rare occurrence, occurring in fewer than 2% of cases (Barth AD 1985). Fetal mummification has been observed in a variety of animals, including sheep (Hailat et. al., 1997), goats (Tutt, 1997), horses (Meyers and Varner, 1991), pigs (Christianson, 1992), dogs and cats (Johnston and Raksil, 1987) and cattle (Roberts, 1986). Breed and past occurrence appear to be risk factors, with a higher prevalence of foetal mummification in Guernsey and Jersey cattle, as well as a higher risk (30%) of recurrence in cows that had a similar event in a previous trimester (Roberts, 1986). Foetal mummification occurs in cattle after placental development and foetal ossification (70 d gestation). Mummification occurs most frequently between the third and eighth months of pregnancy, without concurrent luteolysis of the corpus luteum (CL) and opening of cervix. Mummification of bovine foetuses is a rare occurrence. Fetal mummification is most commonly seen in cattle and goats with a persistent CL, as both species depend on progesterone (P4) produced by the CL to maintain pregnancy (Mathew et al, 1980). In cattle, however, the placenta can produce enough P4 to maintain the pregnancy between days 150 and 200 (Johnson et. al., 1981). The amniotic and allantoic fluids are resorbed after foetal death, dehydrating the foetal tissues and annex membranes. The undeveloped and

unkeratinized skin of the foetus may aid in mummification by allowing faster loss of bodily fluids (Hubbert, 1974).

### DIAGNOSIS

The diagnosis can be made by per-rectal palpation. The mummified foetus has the appearance of a compact, hard, and immobile mass without placental fluid or placentomes, according to transrectal palpation and ultrasonographic examination. Except in a few rare cases a decrease in milk production and weight loss have been reported, otherwise the dam's general health appears normal (Frazer, 2004).

### TREATMENT AND DISCUSSION

Initially, animal was induced for parturition with Valethamate bromide (Inj. Epidosin, TTK health care, 80mg, IM), Oestradiol benzoate (Inj.Preg Heat, Virbac, 2mg, IM), Prostaglandin (Inj. Vetmate, Vet-care, 500µg, IM) and calcium borogluconate (Inj. Mifex, Novartis, 450 ml IV). But no progress was observed in cervical dilatation even after 72 hours of treatment. So it was decided to perform caesarean section.

Following aseptic preparation of the operative site, incision was made parallel and lateral to the milk vein in caudoventral oblique direction. A careful dissection of skin, muscles and peritoneum were made to expose the uterus. The distended gravid uterus was pulled out through the incised opening. A longitudinal incision along the greater curvature of uterine horn was made to remove the mummified foetus (Fig1). Uterine cavity and peritoneal cavity were flushed with diluted povidone iodine in NS solution. Incised uterus was sutured with chromic catgut no.3 in two layers by Cushing and Lambert pattern while deep muscle layers along with peritoneum were sutured in lock stitch pattern with vicryl no 3. Superficial muscles

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were also sutured by lock stitch pattern taking deep layers in alternate suture bite to prevent dead space. Skin was opposed by silk in a horizontal mattress pattern.

Post-operatively Oxytocin (10ml IV) was given in 1 litre normal saline to accelerate uterine involution. Dextrose saline 5% (3 liters/day) was continued intravenously for 5 days along with Inj. Ceftiofur (1g IM) , Flunixin meglumine (15ml IM) for 7 days and B-complex (Inj. Belamyl, 10ml IM) was administered for 5 days. Skin sutures were removed after 14 days of surgery. The cow had an uneventful recovery

During treatment of abnormal pregnancy, the major goal is to expel the dead foetus and conceive the cow at the earliest. Although spontaneous abortion of mummified foetuses is possible (Erb and Morrison, 1957), the foetuses are usually expelled with veterinary medical assistance. In foetal mummification, induction of luteolysis with PGF2 injection is the preferred treatment, with the foetus being expelled within 2 to 4 days. Despite being treated with PGF2, a small proportion of cows fail to expel the mummified foetus and require caesarean section.

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