



Management of Hematic Mummification in a Jersey Crossbred Heifer with Vulvar Stenosis by Episiotomy

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ABSTRACT

A case of hematic mummification in a Jersey crossbred heifer was presented. Pregnancy was terminated using Prostaglandin F_{2α} treatment. Since the animal had stenosis of vulva, episiotomy was performed to widen the opening of the birth canal and the mummified fetus was delivered successfully.

Keywords: Fetal Mummification, Vulvar Stenosis, Episiotomy, Jersey Crossbred Heifer.

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INTRODUCTION

Bovine fetal mummification is very rare and the incidence in cattle is 0.43 to 1.8% (Dabas and Chaudhri, 2011). Fetal mummification is associated with death of fetus in the uterus between third to eighth month of gestation without concomitant luteolysis and adequate cervical dilatation (Lefebvre, 2015) and is characterized by failure in expulsion of the dead fetus, absorption of fetal fluids, involution of fetal cotyledons and maternal caruncles, leaving a firm, hard fetus in the uterus. The present case reports a successful par-vaginal delivery of a mummified fetus in a Jersey crossbred heifer by episiotomy operation.

CASE HISTORY AND OBSERVATIONS

A four years old primiparous Jersey crossbred heifer was

brought to the Large Animal Obstetrics unit of Veterinary Clinical Complex, Veterinary College and Research Institute, Salem with the history of prolonged gestation and not showing any signs of impending parturition. On general clinical examination all the parameters were within the normal limit. During vaginal examination it was able to pass only four finger freely through vulval lips. The measurement of vulval opening from dorsal commissure to ventral commissure was 4.8cm. The vaginal examination revealed a stenosed vulva with difficulty passing the hand into the birth canal. The liberal lubrication allowed the hand to pass with difficulty and per-vaginal examination revealed closed external os of the cervix. Per rectal examination revealed the absence of fetal fluid, fetal reflex, placentomes, fremitus and the uterus was tightly contracted over the fetus with the typical empty eye sockets. Based on history and rectal examination findings the case was diagnosed as fetal mummification.

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TREATMENT AND DISCUSSION

It was decided to terminate the pregnancy with Prostaglandin F_{2α}. The animal was injected with 500µg of Cloprostenol sodium intramuscularly and the animal was examined at 24 hours interval. After 72 hours, the cervix was fully dilated but the mummified fetus lodged at anterior vagina due to the tightly contracted vagina over the fetus and a viscid thick brownish discharge from the vulva was noticed. Since the per-vaginal delivery of the fetus through the stenosed vulva was difficult, to avoid vulvar tear, it was decided to perform episiotomy. The animal was stabilized with one liter of Ringer's lactate and one liter of DNS intravenously. Under caudal epidural anesthesia using 5 ml of 2% Lignocaine Hydrochloride at sacro-coccygeal space episiotomy was performed on the dorso lateral aspect of vulvar lips by making a 2 incision on the right side vulvar lips at 2'O clock position. After thorough lubrication of the birth passage, a mummified fetus along with the fetal membrane was removed per-vaginally (Fig. 1). The animal was administered with inj. Streptopenicillin 5g i.m, inj. Meloxicam @ 0.2mg/kg B.Wt. i.m, inj. Chlorpheniramine maleate @ 0.5mg/kg B.Wt. i.m. The antibiotic and antihistamine were continued for two more days and the animal had an uneventful recovery.



Fig.1: Mummified fetus delivered

The biometry of the mummified fetus delivered was as follows

Crown-rump length	56cm
Head width	7.8cm
Head length	20cm
Forelimb length	33cm
Height of the fetus	29cm
Hind limb length	31cm
Placenta weight	1.05kg
Fetus weight	5.65kg

The fetal age was calculated as explained by Kovamo *et al* (2018) and it was around 6 months. The cause of fetal mummification is unknown and it may occur due to various infectious agents like *Leptospira*, *Campylobacter* and BVD-MD virus (Drost, 2007). Since this condition is asymptomatic it is difficult to diagnose fetal mummification. Based on prolonged gestation period the case was often diagnosed as fetal mummification (Noakes *et al.*, 2019). The hypothesis of the process of intrauterine fetal mummification is the dehydration of the fetus and fetal membranes which neutralizes the autolysis of tissue in the absence of oxygen and bacteria (Daneshmand *et al.*, 2003). In a previous report by Rao *et al.* (2009) delivery of a mummified fetus by caesarean operation in an Ongole cow was reported. But the present case reports a successful per-vaginal delivery of a mummified fetus with single prostaglandin therapy which concurred with a previous report by Dabas and Chudhri (2011).

CONCLUSION

The present case report recorded a successful per-vaginal delivery of a mummified fetus with single prostaglandin therapy.

CONFLICT OF INTEREST

No conflict of interest.

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