

## MANAGEMENT OF HEMATIC MUMMIFICATION BY CERVICOTOMY IN A JERSEY CROSSBRED COW

A. RESHMA\*, T. SATHIAMOORTHY, R. SURESH KUMAR, S. RANGASAMY,  
T. SARATH and CECILIA JOSEPH

Department of Veterinary Gynaecology and Obstetrics,  
Madras Veterinary College, TANUVAS, Chennai – 600 007, India

Received: 24.09.2019; Accepted: 13.11.2019

### SUMMARY

A case of fetal mummification with incomplete dilatation of cervix was presented and as induction of parturition using prostaglandin therapy failed, cervicotomy was performed and a partially macerated fetal mummy was removed.

**Keywords:** Cervicotomy, Hematic mummification, Partial maceration

Fetal mummification is associated with a series of morphological alterations in a fetus which dies and is retained in the uterus for a prolonged period. However, the occurrence of the condition in cattle is very low, 0.43 to 1.8% (Dabas and Chaudhari, 2011). The etiology for fetal mummification is unknown and it may occur due to infectious agent like *Leptospira*, *Campylobacter* and BVD-MD virus (Drost, 2007). Diagnosis of foetal mummification is difficult because it is asymptomatic. The present case reported the removal of a mummified fetus which was partially macerated due to incomplete cervical dilatation and its successful management by cervicotomy.

A pleuriparous Jersey crossbred cow was brought to the Madras Veterinary College Teaching Hospital with the history of having completed gestation without progress to parturition with purulent foul smelling vaginal discharge. The body temperature of cow was 38.5 °C, respiratory rate was 32/minute, heart rate was 70/minute and the conjunctival mucus membrane was pink and moist and on vaginal examination, the fetal head with empty eye sockets was palpated through the incomplete dilated cervix with foul smelling vaginal discharge. Rectal examination revealed absence of foetal fluids, foetal reflexes and the uterus tightly contracted over the fetus. Based on rectal and vaginal examination, the case was diagnosed as fetal mummification with incomplete dilatation of cervix.

On the first day of treatment, Inj. Cloprostenol 500 µg (Inj. Pragma®, Intas Pharmaceuticals) i.m., Inj. Normal saline 2 litres i.v., Inj. Ringer's lactate 2 litres i.v., Inj. Calcium borogluconate 250 ml slow i.v. and Inj. Ceftriaxone 4g i.v. were administered by parenteral route and 100 ml of diluted 5% Povidone iodine solution was infused into the uterus to minimize the uterine infection since there was mild infection and the uterus was tightly contracted over the fetus. Parenteral fluids, antibiotics and intrauterine

infusion were continued on subsequent days and the cervical dilatation was monitored once in every 12 hours. Since there was no progress in the cervical dilatation even upto 72 hours post treatment, cervicotomy was performed under low caudal epidural anaesthesia using 3 ml of 2% Lignocaine hydrochloride, an eight cm long incision was made on the right dorso lateral aspect of the cervix. A partially macerated fetus was removed (Fig. 1) from the uterus and the cervical incision was sutured using absorbable PGA no. 2 with simple continuous pattern. Postoperatively, the animal was treated with Inj. Normal saline 2 litres i.v., Inj. Ringer's lactate 2 litres i.v., Inj. Ceftriaxone 4 g i.v. and Inj. Meloxicam 15 ml i.m. for five consecutive days. The animal had an uneventful recovery after 10 days.

But the present case was detected due to the foul smelling vaginal discharge. Advanced age of the fetus may be the reason for failure of prostaglandin therapy and a similar observation was also reported by Kumar *et al.* (2017). Medical management with single injection of prostaglandin (Azizunnesa *et al.*, 2010), double injection of prostaglandin (Bhuyan *et al.*, 2016), Epidosin® (Valethamate bromide) and oxytocin (Kumar *et al.*, 2017)



Fig. 1. Mummified fetus which progressed to maceration

\*Corresponding author: drareshma@gmail.com

and Valethamate bromide, Estradiol benzoate, PGF<sub>2α</sub> and Calcium borogluconate (Dutt *et al.*, 2018) failed to expel the fetus and caesarean section was performed to remove the foetus by these authors. But, Sathiamoorthy *et al.* (2011) performed cervicotomy to remove the mummified foetus which was followed in the present case.

## REFERENCES

- Azizunnesa, M., Sutradhar, B.C., Das, B.C., Hossain, M.F. and Faruk, M.O. (2009). A case study on mummified foetus in a heifer. *Univ. J. Zool. Rajshahi. Univ.* **28**: 61-63.
- Bhuyan, C., Sathapathy, S., Patra, R. and Sahu, S.K. (2016). Surgical management of crossbred cow having mummified fetus. *Int. J. Sci. Nat.* **7**(3): 690-93.
- Dabas, V.S. and Chaudhari, C.F. (2011). Management of mummified foetus in a cow. *Int. J. Agro Vet. Med. Sci.* **5**(3): 365-367.
- Drost, M. (2007). Complications during gestation in the cow. *Theriogenology*. **8**: 487-491.
- Dutt, R., Dalal, J., Singh, G. and Gahalot, S.C. (2018). Management of fetal mummification/maceration through left flank caesarean section in cows-study of four cases. *Adv. Anim. Vet. Sci.* **6**(1): 12-16.
- Kumar, R.P., Prasad, B.C., Bose, G.S.C., Prasad, V.D. and Sreenu, M., 2017. Diagnosis and Management of fetal Mummification in cow. *Int. J. Sci. Environ. Technol.* **6**: 3044-3048.
- Sathiamoorthy, T., Balasubramanian, S., Rangasamy, S., Raja, A. and Asokan, S.A. (2011). Cervicotomy approach for dystocia due to imperfect cervical dilatation (ICD) in a Cow. *J. Indian Vet. Assoc.* **9**(1): 45-46.