



E-ISSN: 2320-7078

P-ISSN: 2349-6800

[www.entomoljournal.com](http://www.entomoljournal.com)

JEZS 2020; SP-8(2): 114-116

© 2020 JEZS

Received: 04-01-2020

Accepted: 06-02-2020

**Anand Kumar**

Assistant Professor Department of Veterinary Gynaecology & Obstetrics, Ranchi Veterinary College, B.A.U., Kanke, Ranchi, Jharkhand, India

**Vinod Kumar**

Assistant Professor Department of Veterinary Surgery & Radiology, Ranchi Veterinary College, B.A.U., Kanke, Ranchi, Jharkhand, India

**Reetu**

Assistant Professor Department of Veterinary Surgery & Radiology, Ranchi Veterinary College, B.A.U., Kanke, Ranchi, Jharkhand, India

**Arvind Kumar Sharma**

Assistant Professor Department of Veterinary Surgery & Radiology, Ranchi Veterinary College, B.A.U., Kanke, Ranchi, Jharkhand, India

## Management of Fetal Maceration in a Cross-Bred Holstein Friesian Cow

**Anand Kumar, Vinod Kumar, Reetu and Arvind Kumar Sharma**

**Abstract**

A crossbred Holstein Friesian cow was referred to Veterinary Clinical Complex, Ranchi Veterinary College with a complaint of dystocia succeeding failed attempts of manual foetal removal by local practitioners. After proper diagnosis and treatment plan a dilation therapy was given to the animal. After 24 hrs a complete cervix dilatation was observed and thereafter successful management of fetal maceration was achieved in the cow.

**Keywords:** Cow, Fetal maceration, incomplete cervical dilation

**Introduction**

Pregnancy loss is unavoidable at any stage of gestation in domestic animals. Fetal death, putrefaction, luteolysis and failure of abortion are known as fetal maceration. Following death of fetus and cervical dilatation bacteria enters into the uterus through the dilated cervix, and by a combination of putrefaction and autolysis, the soft tissues are digested, leaving a mass of fetal bones within the uterus (Ajitkumar *et al.*, 2007) [3]. If it occurs before bone formation then fetus is reabsorbed but after bone formation, the muscles will be destroyed and bone will remain there. Incomplete abortion after 3<sup>rd</sup> month of gestation is the main reason for a retained fetal bone in the uterus of cow and buffaloes (Sood *et al.*, 2009) [9]. Fetal maceration has been reported in all species of animals (Roberts, 1971) [8] at any stage of gestation. Fetal maceration is common in cattle and buffalo (Purohit and Gaur, 2011) [7] but rarely occurs in small ruminant (Ajitkumar *et al.*, 2007; Mehta *et al.*, 2005) [1, 5], mare (Burns and Card, 2000) [2] and companion animals. Usually these cases have a history of intermittent straining (Kochar *et al.*, 1996) [4] for a several days and accompanied by foul fetid reddish grey vulvar discharge. This condition can also be diagnosed by the history, rectal palpation and finding of piece of bone in the uterus. This case study describes the per-vaginal delivery of a macerated fetus through traction from a crossbred Holstein Friesian cow after induction of parturition.

**Case history and clinical observation**

A Cross Bred Holstein Friesian cow of age about Six years was presented at veterinary Clinical Complex of Ranchi Veterinary College B.A.U. Kanka, Ranchi Jharkhand, with the history of complete gestation period, foul smelling discharge, and fetal death. The animal was treated by local practitioner using Dexamethasone, Vetmate and Epidosine, but no success was observed in terms of fetal delivery. According to owner animal was off fed, dull depress, frequent straining with foul smelling reddish vulvar discharge, since 5days and clinical observation revealed that animal had elevated temperature and pulse rate. On per-rectal examination distinct crepitating sound among the fetal bones which is present in uterine cavity. The placentomes were not palpable and fremitus was absent. Per-vaginal examination revealed partial dilatation of cervix (only one hand) and fetus was present in anterior longitudinal presentation along with lateral deviation of head. One fore limb of fetus was broken by applying force traction. On the basis of history, per rectal and per vaginal examination, this case was diagnosed as fetal maceration.

**Treatment and Discussion**

The treatment was proceeded with the administration of 48 mg of Valethamate bromide (Epidosin), 40mg Dexamethasone (Dexona), 500mcg Cloprostenol sodium (Vetmate) for cervical dilation, and 30 mg of Oestradiol Benzoate (Prag Heat) intramuscularly for inducing

**Corresponding Author:****Anand Kumar**

Assistant Professor Department of Veterinary Gynaecology & Obstetrics, Ranchi Veterinary College, B.A.U., Kanke, Ranchi, Jharkhand, India

involution of corpus luteum with subsequent termination of pregnancy. Supportive therapy was given by administration of Calcium-Magnesium-Boro-Gluconate (Mifex) 450 ml slow I/V, Antibiotic (X-ceft) 1g, Anti inflammatory (Megludyne) 10ml and Liver extract (Belamy 1) 10ml. After 24 hours, per-vaginal examination revealed complete dilatation of cervix and macerated fetus. The foetus was delivered by careful traction using long handle eye hook. Other remaining parts of placenta, bones were removed manually. The expelled mass was a macerated with partial autolysis of soft tissues (Fig. 1). After removal of fetus and other parts, uterus was lavaged with warm normal saline then four intrauterine boli (Cleanex) were placed in the uterus to prevent local uterine infection.

Symptomatically, animal was treated with antibiotic, antihistamine, anti-inflammatory drugs, liver tonic and intravenous fluids were continued for 1 week.

In fetal maceration, death can occur at any stage of the gestation but more commonly after 3th month of pregnancy by which time fetal bones are fairly well developed that can be felt per-rectally. Partially dilated cervix might be the reason for the non-delivery of a dead fetus, or the abnormal presentation of a fairly dry fetus which causes it to be retained in the uterus. The delayed cases of fetal maceration causes severe damage to the endometrium, became adhered to the uterine wall and are difficult to remove other than hysterectomy (Mehta *et al.*, 2005; Sood *et al.*, 2009) <sup>[5, 9]</sup>.



**Fig 1:** Manually removed macerated foetus from the Cow



**Fig 2:** Clinical Presentation of Cow

## References

1. Ajitkumar G, Kuriakose AM, Ghosh KNA and Sreekumaran. Fetal maceration in a goat. Indian Journal of Animal Reproduction. 2007; 28:107-108.
2. Burns TE, Card EE. Fetal maceration and retention of fetal bones in a mare. Journal of American Veterinary Medical Association. 2000; 217:878-880.
3. Drost M. Complication during gestation in the cow.

- Theriogenol. 2007; 68:487-491
4. Kochar HPS, Prabhakar S, Nanda AS. Fetal maceration causing utero-enteric fistula in a buffalo. *Indian Journal of Animal Reproduction*, 1996, 17.
  5. Mehta V, Sharma MK, Bhatt L. Macerated fetus in goat. *Indian Journal of Animal Reproduction*. 2005; 26:75.
  6. Noakes, DE, Parkinson TJ, England GCW, Arthur GH. *Arthur's Veterinary Reproduction and Obstetrics*, 8th Edn., Harcourt (India) Private Ltd, New Delhi. 2001, 138.
  7. Purohit GN, Gaur M. "Etiology, Antenatal Diagnosis and Therapy of Fetal Complications of Gestation in Large and Small Domestic Ruminants", *Theriogenology Insight*. 2011; 1:45-63.
  8. Roberts SJ. "Veterinary Obstetrics & Genital Diseases". 1971, 174-175.
  9. Sood P, Vasistha NK, Singh M. Use of a novel surgical approach to manage macerated fetus in a crossbred cow. *Veterinary Record*. 2009; 165:347-48.