

# A CASE OF PARTIAL FETAL MACERATION IN GERMAN SHEPHERD BITCH AND ITS SUCCESSFUL MANAGEMENT

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A three year old German shepherd bitch was presented with the history of abnormal foul smell brownish vaginal discharge, four days after the initiation of normal whelping. Complete clinical evaluation was done and observed normal body temperature with normal pulse rate without any signs of septicemia or toxemia. Bitch was in first parity with completed gestation period of 63 days after the second mating. Three dead puppies were delivered by the bitch before 2 days and since then there was no progress observed during the whelping. Per vaginal examination revealed foetal bones in the birth canal but the birth canal was not fully dilated. The radiograph revealed intrauterine foetal bones in the birth canal. Therapeutic treatment was carried out to dilate birth canal for expulsion of the foetal masses. After the treatment female dog showed a drastic response to the treatment therapy and four foetal masses were removed per vaginally by slight traction with proper lubrication. X-ray imaging of pelvic region was done to ensure the complete evacuation of the uterus from foetal bones.

**Keywords:** Bitch, Macerated fetus, Maceration, Traction.

In domestic animals, pregnancy loss may occur at any stage of gestation (Serin & Parin, 2009). The loss may be associated with expulsion of the dead foetus before term (abortion) or of a fully developed, but dead fetus at term (stillbirth). Sometimes, there is the failure of an aborting foetus to be expelled due perhaps to uterine inertia and intrauterine infections resulting in foetal emphysema and maceration (Johnston *et al.*, 2001).

The cervix and uterus is partially or completely open during abortion; consequently, bacteria or other contagions can easily enter through the vagina to uterine lumen. After bacterial contamination has occurred, fetal emphysema begins within 24-48 hours and, maceration occurs within 3-4 days (Bhattacharyya *et al.*, 2015). Although maceration of the foetus can occur in any species, it is observed and described most frequently in cattle. The incidence is quite low in bitches (Alaçam and Do aneli, 1973). The present case reports a rare foetal maceration in German Shepherd bitch and its successful per vaginal delivery and therapeutic management.

## Case History and Observations

A three year old German shepherd bitch weighing about 27 kg was presented at Teaching Veterinary Clinical Complex,

Nagpur Veterinary College, Nagpur with the history of abnormal foul smell brownish vaginal discharge, 4 days after the initiation of normal whelping. Complete clinical evaluation was done. There were normal body temperature and pulse rate without any signs of septicemia or toxemia. Bitch was in first parity with completed gestation period of 63 days, after the second mating. Three dead puppies were delivered 2 days before by the bitch and since then there was no progress observed for the whelping. Per vaginal examination revealed presence of foetal bones in the birth canal, but the birth canal was not fully dilated. The decision was taken to take the radiograph and found intrauterine foetal skeletons on lateral abdomen view (Fig.1).

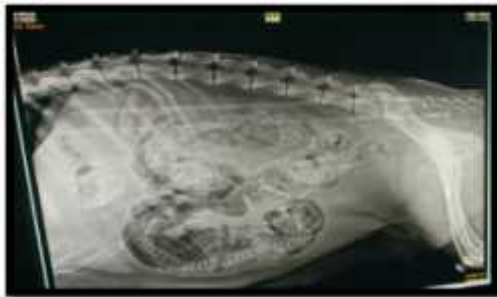
## Treatment

Therapeutic treatment was done by administering 10% Dextrose 200 ml, 5 I.U. (0.5 ml) of inj. Oxytocin, 10% inj. Calcium gluconate @ 0.2 ml/Kg body weight, inj. Valethamate bromide 10 mg and broad spectrum antibiotic inj. Ceftriaxone @ 20 mg/Kg body weight, intravenously.

## Results and Discussion

After the treatment bitch showed a drastic response to the treatment/ therapy and

four fetal masses were removed per vaginally by slight traction with proper lubrication. Vertebral columns and bony parts of two completely macerated foetus and two foetus started undergoing maceration were recovered by applying slight traction with the help of fingers per vaginum (Fig.2). Thereafter, all parts of macerated fetuses



**Fig.1-Lateral abdominal radiograph showing skeletons of macerated fetuses**

Foetal retention at parturition is considered as a rare condition. Nevertheless, the retention of dead fetuses could induce uterine inertia, intrauterine infection, emphysema or foetal maceration. In multipara, maceration of early foetus usually results in their being absorbed. More commonly foetal maceration follow abortion in late stage of gestation in which the cervix is dilated, but the foetus is not expelled due to failure of genital tract to dilate sufficiently or contract normally, or because of an abnormal presentation, position and/or posture of dead foetus as also reported by Drost (2007). However, systemic signs were absent in the present case. The maceration in the present case was not chronic, so it was decided to elect therapeutic treatment first. Therapy successfully yielded the dilatation of cervix, facilitating the manual recovery of foetal mass and skeletons of four dead fetuses.

### Conclusions

The reported clinical case provided that the evidence of the partial foetal maceration in the bitch without worsening of the general condition and sepsis development. Without surgical intervention maceration in fresh

were removed carefully. After manual removal of the foetal structures, X-ray examination of pelvic region revealed no bony structures remained in the uterus. The antibiotic therapy was advised for 5 consecutive days. After completion of therapy, the bitch was uneventfully recovered, as reported.



**Fig.2- Per vaginal delivery of four macerated foetus**

cases would be successfully managed by conservative therapeutic treatment. In addition, proper and accurate observations in such cases and using medical imaging methods are most important for the correct diagnosis.

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