

A Rare Case of Foetal Maceration in Bitch and its Successful Management

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Abstract

A seven years old bitch was presented with the history of whelping signs that appeared five days ago followed by abnormal brownish vaginal discharge since last three days. The body temperature and pulsation was normal without any signs of septicaemia or toxemia. Per vaginal examination revealed foetal bones in the birth canal but the birth canal was not fully patent. Therapeutic treatment to dilate the birth canal for expulsion of the foetal masses was carried out. After treatment, the foetal masses of three puppies were recovered by applying slight traction with the help of fingers per vaginum. X-ray imaging of pelvic region was done to ensure the complete evacuation of the uterus from foetal bones.

Keywords: Canine, Foetus, Maceration, Bones

Foetal maceration occurs as a consequence of the failure of an aborting foetus to be expelled, probably due to uterine inertia (Johnston *et al.* 2001). Putrefying and other bacteria enter the uterus through the dilated cervix, and lead to putrefaction and autolysis the soft tissues, leaving foetal bones within the uterus (Long, 2009). The bacteria may be either the cause of foetal death or may enter the uterus via the cervix after the foetus' death. Foetal maceration has been reported in several species including bitch. However, the incidence is very low in the bitch, possibly due to expulsion of foetus being the commonest sequel to foetal death (Feldman and Nelson, 1996; England, 1998; Johnston *et*

al. 2001). This case report describes an isolated and rare case of canine foetal maceration with retained bones and its successful management.

Case history and handling

A seven-years-old non-descript bitch weighing about 20 kg was presented to Referral Veterinary Polyclinic of Indian Veterinary Research Institute, Izatnagar with the history of abnormal brownish fetid vaginal discharge since last 3 days. The owner reported that the animal showed whelping signs 5 days ago without expulsion of any foetus. The expected date of whelping was not known as owner was unaware of mating history. The bitch was anorexic, but alert without showing any systemic sign of illness. Clinical examination revealed 103°F rectal temperature and normal pulsation. The perineum of the animal was soiled with vaginal discharge. On abdominal palpation of the bitch, no foetal mass could be detected. Digital per vaginal examination revealed the presence of bony structures in the birth canal.



Fig. 1: Foetal mass, bones and vertebral columns of macerated foetuses

Manual removal of foetal parts was attempted per vaginam, but due to insufficient patency of cervix, foetal bones could not be approached completely. The bitch was administered with 10% Dextrose 100 ml, Oxytocin 10 I.U. (Syntocinon®), 10% Calcium gluconate @ 1.5 mL/Kg body weight, Valethamate bromide 8 mg (Epidosin®) and broad spectrum antibiotic Ceftriaxone @ 25 mg/Kg body weight (Intacef pet®) intravenously. Birth canal was re-examined per vaginam after 3 hours of administration of the drugs. Birth canal was completely patent and foetal parts were present in the caudal part of birth canal that could be easily removed with manual intervention.

Vertebral columns and bony parts of two completely macerated foetuses and one foetus which started undergoing maceration were recovered by applying slight traction with the help of fingers per vaginum (Fig. 1). Thereafter, all remaining parts of foetal bones were carefully removed. 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.

Discussion

In multipara, maceration of early foetuses 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 (Drost, 2007). In this case, as per the history, the foetal viability might have lost after non-intervened dystocia due to foetal maldisposition or uterine inertia and autolytic bacteria entered into uterus through dilated cervix leading to maceration. In foetal maceration and retention cases, bitches exhibit a foul and foetid uterine discharge and may become systemically ill, showing signs of septicemia or toxemia (England, 1998; Johnston *et al.* 2001); however, systemic signs were absent in the present case. Generally, therapy of maceration cases involves removal of foetuses by ovariohysterectomy or hysterotomy. Reports indicated that medicinal therapy may be successful in fresh cases where foetal skeletal material is not embedded within the uterus (Feldman and Nelson, 1996). 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 three foetuses.

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