

# Ectopic fetal maceration in a Labrador bitch

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## Abstract

A two year six months old Labrador bitch was presented to the clinics with a suspicion of having pups in the abdomen after an expected gestation period of three months. It was diagnosed tentatively as ectopic fetus by radiography and ultrasonography. Exploratory laparotomy confirmed it as ectopic fetus with maceration. Diagnosis and management of the case were discussed.

**Key words:** Labrador retriever; Ectopic fetus; Uterine rupture; macerated fetus; uterine adhesions

## Introduction

Ectopic fetus which is uncommon in bitches can be caused by uterine rupture which may occur either during preparturient period due to road accidents (Jackson, 2004), or during periparturient period due to infection, dead fetus, uterine torsion, inappropriate obstetrical technique and excess of oxytocin (Allcock and Penhale 1952, Oelzner and Munnich 1997, Noakes et al., 2001). Fetal maceration which is common in cattle and rare in bitches is due to uterine inertia or intrauterine infections, failure of expulsion of the aborted fetus leading to emphysemated or macerated fetus (Johnston et al., 2001). In these conditions the bacteria may enter the uterus through the dilated cervix resulting in putrefaction and autolysis of soft tissues leaving the mass of fetal bones within the uterus (Jones et al 1997). The present paper reports an ectopic fetal maceration which might be resulted by excessive dose of oxytocin at the end of gestation.

## Material and Methods

A two year six month old Labrador bitch was presented with a suspicion of gestation even after completion of 90 days from the date of its crossing. It was said to be induced with Inj Oxytocin by the local veterinary practitioner on 60<sup>th</sup> day of its gestation which didn't result in whelping. Animal was active and no signs of sepsis were observed on the day of its presentation. The blood parameters and serum biochemical parameters are within normal range. Abdominal palpation revealed a hard mass in the cranial abdomen. It was diagnosed tentatively as ectopic fetus by radiography (Fig-1) and ultrasonography.

Exploratory laparotomy was performed under general anaesthesia using atropine sulphate as preanaesthetic, Ketamine @ 5mg/Kg Bwt and Diazepam @ 0.5 mg /Kg Bwt for induction of anesthesia and Isoflurane for maintenance. Intraoperatively, uterus was found to be adhered to intestines and urinary bladder. By extending the laparotomy incision cranially a skeletal mass was found adhered to the intestines (Fig-2) and the same was removed by blunt separation of its adhesions with intestines. Ovariohysterectomy was performed after separation of uterine adhesions with bladder and colon. The laparotomy incision was closed as per the standard procedure. Postoperatively the dog was given Ceftriaxone sodium at the dose rate of 25 mg per Kg body weight for 7 days, Meloxicam at the dose rate of 0.2mg per Kg body weight for 3 days.



Fig-1: fetal skeleton in the cranial abdomen



Fig. 2 Ectopic macerated fetus adhered to intestines

## Results and Discussion

The animal showed no signs of illness during an observation period of six months and there was an uneventful recovery. Ectopic fetus noticed in the present case was assumed to be due to uterine rupture which might be resulted due to injections of oxytocin given by the local veterinary before the completion of gestation. Lucas et al. (2003) and Hayes (2004) opined that the chance of occurrence of uterine rupture during pregnancy is less in dogs and cats when compared to bovines; whereas Jackson (2004), Hajurka et al.,(2005) stated that uterine rupture in animals at the end of gestation may occur due to administration of excess doses of oxytocin. Fetal adhesions with intestines were noticed in the present case which is in concomitance with the one of the findings of Gonzalez – Dominguez et al., (2010) in the animals with ectopic fetus, but other intra operative findings like intestinal compression, septic peritonitis and hemorrhage were not noticed in the present case. Bodh et al., (2014) observed foul and fetoid discharges from the vulva of animals with fetal maceration, but in the present case such discharges were not noticed. Removal of macerated fetus besides ovariohysterectomy which was performed in the present case is

opined as good treatment strategy for fetal maceration by Bodh et al., (2014). Early diagnosis of the condition and proper treatment which was given to the animal ensured a good recovery in the present case.

#### Conclusion

Administration of excess doses of oxytocin to induce whelping in animals with improper dilatation of cervix may result in uterine rupture followed by ectopic fetus condition. In the present case removal of macerated fetus with proper postoperative care yielded satisfactory results.

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