FETAL MACERATION IN A DOG

SOPHIA, X.,* JAYAKUMAR, C., **ABHILASH, R.S., **DEEPAK, J*
Department of Animal Reproduction, Gynaecology and Obstetrics
College of Veterinary and Animal Sciences, Mannuthy, Kerala

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ABSTRACT

A female dog crossed 61 days back with a history of brownish black vaginal discharge was confirmed of foetal maceration based on radiographic and sonographic findings. Therapeutic management with a combination of mifepristone and misoprostol failed to expel the foetus and a hysterotomy was performed to remove it. The dog had a successful conception in the subsequent estrus.

Keywords: Canine, Maceration, Medical management, Hysterotomy,Fertility

INTRODUCTION

Foetal maceration has been reported in several species including bitch and occurs as a consequence of failure of expulsion of aborting foetus, probably due to uterine inertia (Johnston *et al.,* 2001). Bacteria enter the uterus through the dilated cervix, leading to putrefaction and autolysis of the soft tissues, leaving foetal bones within the uterus (Long, 2009). 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 and Johnston *et al.,*2001). This case report describes a case of canine foetal maceration and its successful management.

CASE HISTORY AND OBSERVATION

A 1.5 year old female Siberian husky with a breeding history of 61 days from last crossing was presented to University Veterinary hospital, Kokkalai, Kerala Veterinary and Animal Sciences Universitywith a complaint of anorexia and brownish black vaginal discharge since three days. The dog had congested mucous membranes, 104.7ÚF rectal temperature and an odourless vaginal discharge. No foetal parts were palpable in the vaginal cavity.Trans- abdominal sonographic examination revealed foetal skeletal structures and non-viable foetuses. Gestational age according to sonographic assessment of BPD of foetus was forty two days. Radiographic examination revealed foetal skeletons but lacked precision (Fig.1). The case was presumptively diagnosed as foetal maceration.

TREATMENT AND DISCUSSION

After diagnosing the condition oral medication with mifepristone @ 3.5 mg/kg.b.wt, BID, misoprostol @ 200 *µg* BID and antibiotic therapy was instituted. With no expulsion of the macerated foetuseseven after 48 hours of treatment,hysterotomy was performed under anaesthesia with propofol induction and isoflurane maintenance. Macerated foetus was removed (Fig. 2) and the uterine lumen flushed thoroughly with normal saline. No gross uterine damage was evident and uterus closed in utrecht pattern with catgut 2.0. Laparotomy incision was closed under standard surgical procedures. Post-operatively, animal was treated with ceftriaxone-tazobactam (20 mg/kg bwt) for 7 days, Metronidazole (20 mg/kg bwt) for 3 days, Tramadol (2mg/kg bwt) and fluid therapy for 2 days. Sutures were removed on day 10 and the recovery was uneventful. Four months after the surgical procedure, the dog exhibited pro-oestrual bleeding. Breedings were performed based on the result of exfoliative vaginal cytology. Dog was confirmed pregnant by sonographic evaluation on day 30 of breeding and a normal whelping ensued with delivery of six healthy pups.

In most of the species, embryonic or foetal loss during prenatal period will result in resorption, abortion, mummification or maceration depending on the stage of pregnancy (Givens and Marley, 2008). 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, sonographic determination of gestational age as 42 days based on foetal head diameter and the disparity with the gestational age based on breeding dates (61 days from last crossing), substantiates the foetal death at an early date and failure of expulsion leading to maceration. Feldman and Nelson (1996) suggested medicinal therapy in fresh cases of maceration where foetal skeletal material is not embedded within the uterus. In the present case combination therapy with progesterone antagonist and PGE_1 was not effective and hence surgical intervention was made. Generally, therapy advised for foetal maceration involves removal of foetus by ovariohysterectomy or hysterotomy. No gross uterine damage in the present case alleviates need for an OHE. The successful post surgical outcome and fertility in subsequent oestrus in this dog could be attributed to the timely surgical intervention preventing a gross uterine pathology from foetal maceration.

*MVSc student **Assistant professor

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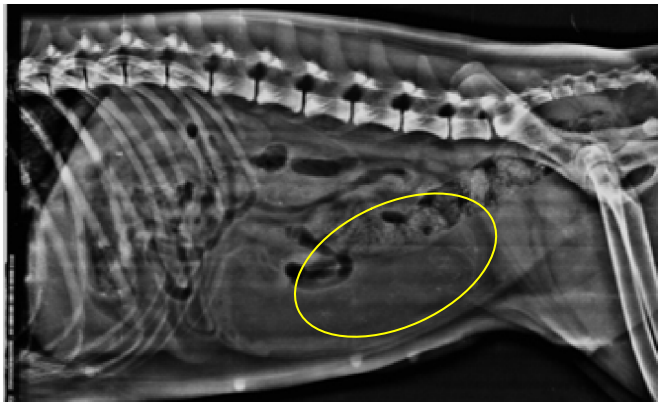

Fig. 1: Macerated foetus - radiograph

Fig. 2: Extractionof macerated foetal contents