

A RARE CASE OF MACERATION WITH PYOMETRA IN LABRADOR RETRIEVER BITCH: A SURGICAL APPROACH

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Abstract: The present case describes the successful surgical management of a rare case of fetal maceration with simultaneous occurrence of pyometra in a Labrador retriever bitch.

Keywords: Bitch, Pyometra, Maceration, Bones, Ovariohysterectomy

Introduction

Fetal maceration occurs as a consequence of the failure of an aborting fetus to be expelled, probably due to uterine inertia (Johnston et al., 2001). Through the dilated cervix, putrefying and other bacteria enter the uterus, and leads to putrefaction and autolysis of the soft tissues, leaving fetal bones within the uterus (Long, 2009). Sometimes these fetal bones become embedded in the uterine wall and are difficult to remove other than by hysterectomy. Sandholm et al., (1975) found that the progesterone-sensitized endometrium and myometrium had an affinity for *E. coli*. The uterus becoming infected during the early luteal phase when receptors for *E. coli* develop within the endometrium, thus enhancing the colonization of the uterus with bacteria. It is likely that the long luteal phase of the bitch is an important contributory factor in the development of the pyometra (Noakes et. al., 2019). Here, successful management of a case of fetal maceration along with pyometra in labrador retriever bitch is discussed, in which whole genitalia was removed and ovariohysterectomy was performed.

Case History and Clinical Observations

A ten year old Labrador retriever bitch (body weight 20 kg) was presented at Veterinary Clinical Complex, DUVASU, Mathura with the history of loss of appetite and foul-smelling vaginal discharge since 15 days. Water intake was increased. According to owner, animal whelped 5 times earlier. Last whelping occurred 2 year back and 7 dead fetuses were delivered by the caesarean section. One year later, animal again showed estrus. But owner was unaware about the recent mating history. Temperature, heart rate and respiration rate were 103.0°f,

74/min, 34/min, respectively. Trans-abdominal ultrasonographic examination revealed irregular hypoechoic pouches in the uterus which confirmed the pyometra (Figure 1).

Treatment and Discussion

In this case, it was decided to go for ovariohysterectomy. Ovariohysterectomy was performed (Figure-2) as per its standard procedure. As after removal of uterus, when the uterus was incised then light chocolate brown coloured pus discharge (Figure-3) came out of the incised part. Thereafter, whole uterus was incised along its length, than it was observed that fetal bones were scattered inside the body of uterus and uterine horns. Therefore, case was diagnosed as fetal maceration along with pyometra. Fetal bones also caused injury to the endometrium which were visible on gross examination of genitalia (Figure 4). In foetal maceration and retention cases, bitches exhibit a foul and fetid uterine discharge and may become systemically ill, showing signs of toxemia or septicemia (Johnston et al., 2001). Nomura and Nishida (1998) demonstrated that the paradigm of progesterone resulting in cystic endometrial hyperplasia, which results in pyometra, may not always be correct; instead, bacteria may be the initial causative agent of pyometra. The progressive degenerative process in the development of cystic endometrial hyperplasia, which is due to fibrosis and glandular distension, has been proposed as an initial lesion of pyometra in elderly female dogs, which is mediated by progesterone and exacerbated by estrogen (De Bosschere et al., 2001). Interestingly, in the present case, maceration along with pyometra was found. Pyometra is best categorized as an infectious cause of infertility, even though the role of the endocrine environment is significant (Noakes et. al., 2019). In the present case as maceration is a septic process here bacteria may be the initial cause of pyometra. Fetal bones caused damage to the wall of uterus which further caused inflammatory reactions and this resulted into accumulation of pus in response to inflammatory reaction.

Conclusion

Ovariohysterectomy is a better option in the condition of simultaneous occurrence of pyometra and retained fetal bones inside the uterus in which there is severe damage to uterus.

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Conflict of Interest

There is no conflict of interest.

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Fig.1 hypoechoic pouch seen in cranio ventral aspect of bladder



Fig.2 Gross appearance of uterus during ovariohysterectomy



Fig.3 purulent material after incising the uterus



Fig.4 After incising the uterus fetal bones present