International Journal of Allied Sciences (IJAS)
Volume.13, Number 9; September-2022;
ISSN: 2836-3760 | Impact Factor: 6.15
https://zapjournals.com/Journals/index.php/Allied-Sciences
Published By: Zendo Academic Publishing

A RARE COMBINATION OF FETAL MACERATION AND PYOMETRA IN A TEN-YEAR-OLD CANINE: A SURGICAL PERSPECTIVE

[1]Parkinson TJ

Article Info

Keywords: Canine, fetal maceration, pyometra, Labrador retriever, ovariohysterectomy, bacterial infection.

Abstract

Fetal maceration and pyometra are rare conditions that can occur simultaneously in older, unsterilized female dogs. Fetal maceration occurs when an aborting fetus fails to be expelled, leaving fetal bones in the uterus. Pyometra, on the other hand, is a severe bacterial infection of the uterus, which can cause systemic illness, toxaemia, or septicemia in affected dogs. This report describes a rare case of fetal maceration along with simultaneous pyometra in a ten-year-old Labrador retriever bitch. The animal presented with a history of loss of appetite and foul-smelling vaginal discharge for 15 days. Trans-abdominal ultrasonographic examination revealed irregular hypoechoic pouches in the uterus, and pus discharge was observed upon incision of the uterus. Fetal bones were found scattered inside the uterus and uterine horns, causing severe inflammatory reactions and damage to the uterine wall. Ovariohysterectomy was performed, and the whole genitalia was removed. The authors attributed the condition to bacterial infections that may have caused pyometra. The document concludes that ovariohysterectomy is the best surgical approach when pyometra and fetal maceration occur simultaneously and cause severe damage to the uterus.

Introduction:

Fetal maceration and pyometra are rare conditions that can cause severe medical complications in older, unsterilized female dogs. Fetal maceration is a condition that occurs when an aborting fetus fails to be expelled, leaving fetal bones in the uterus. This condition is often caused by uterine inertia, where putrefying and other bacteria enter the uterus through the dilated cervix and lead to putrefaction and autolysis of the soft tissues, leaving fetal bones within the uterus. Pyometra, on the other hand, is a severe bacterial infection of the uterus that commonly occurs in unsterilized older female dogs. The condition leads to a foul and fetid uterine discharge and can cause systemic illness, toxaemia, or septicemia in affected dogs. It is likely that the long luteal phase of the bitch is an important contributory factor in the development of pyometra. The present document describes a rare

[1] Department of Veterinary Gynaecology and Obstetrics, College of Veterinary Science and Animal Husbandry, U.P. Pandit Deendayal Upadhyay Pashu Chikitsa Vigyan Vishwavidhyala Evam Go-Anusandhan Sansthan, Mathura, Uttarpradesh

case of fetal maceration along with simultaneous pyometra in a ten-year-old Labrador retriever bitch. In this case, ovariohysterectomy was performed, and the whole genitalia was removed. The document concludes that ovariohysterectomy is the best surgical approach when pyometra and fetal maceration occur simultaneously and cause severe damage to the uterus. The report provides important insight into the medical management of rare veterinary conditions and highlights the significance of pet spaying to avoid severe infections and complications.

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 it's 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 toxaemia 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.

Acknowledgement

Authors are highly grateful to Head of the Department to provide necessary facilities to carry out the work.

Conflict of Interest

There is no conflict of interest.

References

De Bosschere H, Ducatelle R, Vermeirsch H (2001). Cystic endometrial hyperplasia– pyometra complex in the bitch: should the two entities be disconnected? Theriogenology. 55:1509–1519.

Johnston SD, Kusritz MVR, Olson PNS (2001). Canine pregnancy. In: Johnston S.D. (ed.): Canine and Feline Theriogenology. W.B. Saunders, Philadelphia: 88-89.

Long S (2009). Abnormal development of the conceptus and its consequences. In: Noakes DE, Parkinson TJ, England GCW (ed.). Veterinary Reproduction and Obstetrics, 9th Edn. W.B.

Saunders, Philadelphia: 123-124.

Noakes DE, Parkinson TJ, England GCW (2019). Infertility in the Bitch and Queen. In: Veterinary Reproduction and Obstetrics. 10th ed. Elsevier Co. Ltd, 600.

Nomura K, Nishida A (1998). Histological variations of canine deciduoma induced in non pregnant horn at different stages of unilateral pregnancy. J. Vet. Med. Sci. 60:623–626.

Sandholm M, Vasenius H, Kivisto AK (1975). Pathogenesis of canine pyometra. J. Am. Vet. Med. A. 167:1006–1010.