Unihorn Pyometra in a Bitch

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Canine pyometra is the most common diestrual uterine disease of intact bitches and is characterized by accumulation of purulent material in the uterine lumen, typically occurring during or immediately following a period of progesterone dominance. Pyometra can be classified as open-cervix or closed-cervix, with the latter being a medical emergency requiring rapid intervention to prevent subsequent sepsis and potential patient death (Pretzer, 2008).

CASE HISTORY AND OBSERVATIONS

An eight years old nulliparous intact Labrador bitch (body weight:30.40 kgs.) was presented in lateral recumbency to the small animal outpatient unit of Gynaecology section, Veterinary Clinical Complex, Veterinary College and Research Institute, Tirunelveli with an anamnesis of distended abdomen, anorexia, polydipsia and purulent vaginal discharge for the past seven days.

Clinical examination revealed bilaterally distended abdomen and malodorous purulent vaginal discharge. The vital parameters were elevated (Temp: 39.8^{o}C; Respiratory rate: 36 / min; Heart rate: 123 / min). Abdominal radiography revealed distended radio-opaque uterine shadow. Ultrasonographical examination revealed anechoic to hypoechoic uterine sacculations of 43.5 to 63.9 mm diameter. Total blood count and biochemistry revealed neutrophilia and elevated levels of BUN (195.5 mg/dl), Creatinine (6.5mg/dl) and ALP (220 units) respectively.Based on the clinical examination, blood picture and imaging techniques, the case was diagnosed as open cervix pyometra.

TREATMENT AND DISCUSSION

Taking into consideration of the age and systemic illness of the animal, ovariohysterectomy was opted over empirical endocrine therapy. The patient was stabilized with fluid therapy and antibiotics to minimize the surgical risk.

The affected right cornua was massive weighing about 4.5 kg with four litres of pus (Figure - 1). Ovarian examination revealed multiple corpora lutea in the right ovary (Figure - 2), while the left ovary is devoid of any structures.

Previously, Raja *et al.* (2017) has reported a case of unilateral pyometra but they attributed the condition to partial evacuation of the fluid from one horn in response to prostaglandin treatment. During

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Figure -1. Massive unihornpyometra

Figure - 2. Multiple corpora lutea in the right ovary

diestrus, the dominance of progesterone usually increases endometrial gland secretory activity, endometrial proliferation and decreases the myometrial contractility (Hagman, 2018). The uniqueness of the present case is the massiveness of the uterine enlargement and fluid accumulation, which might be attributed to the increased response of that horn to elevated levels of progesterone secreted by multiple corpora lutea of ipsilateral ovary as suggested by Chaffaux and Thibier (1978). Inactive left ovary might explain the non-involvement of left uterine horn in the present case.

Histopathology of both right and left cornua revealed cystic endometritis, thickened endometrial wall with mononuclear cell infiltrations. Cystic endometrial hyperplasia usually develops after repeated progestational stimulation during the luteal phase of the oestrous cycle. These effects are cumulative after repeated oestrous cycles, explaining the increased incidence in middle-aged to older bitches (Hardy and Osborne, 1974).

As a post operative management, fluid losses were replaced and antibiotic coverage was provided for five days. The blood and biochemical parameters returned to normal physiological limits within 10 days and the animal had an uneventful recovery. Proper utilisation of diagnostic aids and timely intervention with surgical procedure saved the bitch.

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REFERENCES

Chaffaux, S and Thibier, M. (1978). Peripheral plasma concentrations of progesterone in the bitch with pyometra. *Annales de Recherches Veterinaires*, **9:**587–92.

Hagman, R. (2018). Pyometra in Small Animals.*Veterinary Clinics: Small Animal Practice*, **48:** 639–661.

Hardy, R.M and Osborne, C.A. (1974). Canine pyometra: pathogenesis, physiology, diagnosis and treatment of uterine and extra-uterine lesions. *Journal of American Animal Hospital Association,* **10**:245–68.

Pretzer, S.D. (2008). Clinical presentation of canine pyometra and mucometra: A review. *Theriogenology*, **70**:359–63.

Raja, S., Satheshkumar, S., Vijayarajan, A., Prabaharan, V., Raj, H.P., M. Vijaya Kumar, M.V and Jayaganthan, P. (2017).Pyometra with unilateral horn evacuation in a Spitz bitch.*Indian Journal Animal Reproduction*, **38**:67-68