

# **SURGICAL MANAGEMENT OF CANINE PYOMETRA: A CASE REPORT**

**K.Manoj kumar, K.Sudarshan Reddy**

Dept. of Veterinary Surgery & Radiology, College of Veterinary Science, Tirupati, Andhra Pradesh, India– 517502

## **ABSTRACT:**

A case of pyometra of Labrador dog aged 9 years was brought to the College of Veterinary Science, Tirupati, Andhra Pradesh with history of anorexia, dullness, depression, vomiting, polydysia, pyuria with slight to moderate vulvar discharge since last 3 to 5 days and no history of mating. Pyometra is a common and lethal disease in bitches characterised by uterine bacterial infection leading to subsequent systemic illness. The objective of the present was to report successful surgical management of pyometra through ovariohysterectomy.

**Keywords:** *pyometra, and ovariohysterectomy.*

## **INTRODUCTION:**

Pyometra is a common metoestral disease of intact adult bitches. The disease is associated with a variety of clinical symptoms and is life-threatening in severe cases. Pyometra is developed as a result of a complex of aetiological factors. These include the hormonal influence on the uterine environment, virulence of the infecting bacteria, the general ability of the bitch to combat the infection and the individual sensitivity to bacterial and inflammatory products. Bacteria from the normal vaginal flora or subclinical urinary tract infections are the most likely source of uterine contamination. Pyometra is specially more frequent in bitches over 8 years old. The bitches that haven't given any birth for a long time are more disposed to pyometra. Pyometra affects also young bitches and the bitches that have given many births.

## **CASE HISTORY AND OBSERVATION:**

A 9 year old Labrador dog was presented to college clinics with history foul vaginal discharge, vomitions, loss of appetite, inactivity, fever, depression, and increased water consumption and urination. Physical examination revealed distended abdomen and vaginal discharges are noticed. Ultrasonographic findings revealed an enlarged uterus with convoluted, tubular horns filled with anechoic to hypoechoic fluid (**Fig:1**). Hence it was diagnosed as a case of pyometra and it was decided to perform surgery. Clinical examination of bitch revealed high rise in body temperature (106 °F), moderate dehydration, congested oral mucus membrane, dyspnoea, rapid and shallow respiration. Inspection of the dog revealed passing of reddish bloody discharge from vagina. There was uterine enlargement on abdominal palpation. Further the dog was subjected to complete blood count examination which revealed leucocytosis and neutrophilia with shift to left.

## **TREATMENT AND DISCUSSION:**

The bitch was prepared with routine operation procedures, premedicated with atropine (0.04 mg/ kg body weight) and anaesthetised with Xylazine (2 mg/kg body weight) and ketamine (10–20 mg/kg body weight) intramuscularly and maintained with ketamine and Diazepam combination. Ovariohysterectomy was performed with midline incision, which revealed an enlarged uterus with thickened wall (**Fig:2**). Following the removal infected uterus (**Fig:3**). and ovaries, the abdominal wall was closed using simple interrupted sutures with PGA NO 1. Due to

abundant subcutaneous tissue, a simple continuous subcutaneous suture was performed using PGA NO 1. Finally, the skin was sutured using simple interrupted sutures with Silk. The wound is then disinfected with antiseptic solution and protected with a few swabs and an adhesive dressing. Animal was fed with moist food for at least three days, daily parenteral antibiotics administered and sutures were removed on the 10<sup>th</sup> postoperative day. No serious postoperative problems were observed in either anesthetic recovery or wound healing.

Pyometra is typically a post-oestral syndrome in adult bitches associated with a variety of clinical and pathological manifestations of genital and multisystemic disease. It is postulated that intrauterine bacteria, which ascend from the vagina during pro-oestrus and oestrus, induce the disease during metoestrus by acting on the progesterone-primed endometrium directly *via* toxin production, or indirectly by the release of inflammatory mediators (Noakes *et al.*, 2001). The commonest clinical signs associated with pyometra include vaginal discharge, lethargy, polyuria, polydipsia, emesis and hyperthermia followed by hypothermia (Verstegen, 2006). The animal presented to hospital also exhibited similar symptoms. The presence of a vaginal discharge allows for a distinction between open and closed pyometra. The surgical treatment in the case of open pyometra is successful when it is performed in the first stage of pathology (Lika *et al.*, 2011). Though the earlier report suggested successful medical management of Pyometra (Shekhar *et.al*, 2008), the present case did not show complete recovery with medical treatment which could be attributed to voluminous pus present in the uterus. Singh *et.al* (2008) opined that medical management of canine pyometra is successful in early stages and ovariohysterectomy is choice of treatment in late phases of pyometra (Roberts,1971).

## Summary:

A case of surgical management of pyometra has been reported and discussed.

## References:

1. Erinda, L., Dhimitër, R., Luigj, T., Paskal, G., and Avni, R. (2011) Medical and surgical treatment of pyometra in dogs. *Macedonian Journal of Animal Science*. 1(2): 391–394.
2. Noakes, D.E., Dhaliwal, G.K., England, G.C. (2001) Cystic endometrial hyperplasia/pyometra in dogs: a review of the causes and pathogenesis. *Journal of reproduction and fertility*. Supplement. 57: 395–406.
3. Robert, S.J. (1971) Infertility in bitches and queens. *Veterinary Obstetrics and Genital Diseases*. 2nd edn., (CAB Publisher and Distributors, India.). Pp.227-236.
4. Shekhar, P., Houque, S., Kumar, M., and Jha, A. K. (2008) Medical management of Canine pyometra – A case report. *Intas Polivet*. 9(3): 100-102.
5. Singh, K.P., Singh, B.K., Singh, B., Singh, J.P., Singh, P., and Singh, H.N. (2008) Pyometra in bitches- Two case reports. *Intas Polivet*. 9(2): 99.
6. Verstegen, J., and Karine. (2006) Pyometra in the bitch and queen. *Proceedings of North American Veterinary Conference*. 20, 7-11.



**Figure 1: Photograph showing anechoic to hypoechoic sacculation on scanning in a dog.**



**Figure 2: Photograph showing large sized uterus with pus after exteriorization through caudal midventral abdominal incision in a dog**



**Figure 3: Photograph showing large sized uterus with pus after excision**