

**CONCURRENT INCIDENCE OF PYOMETRA AND VAGINAL TUMOR IN A
BITCH****T.Sathiamoorthy¹, N.Arunmozhi², P.Sridevi³ and A.Sabarinathan⁴**

Department of Veterinary, Gynaecology and Obstetrics
Madras Veterinary College
Tamil Nadu Veterinary and Animal Sciences University
Chennai-600 007

Abstract

Concurrent incidence of pyometra and vaginal tumor in a bitch and its successful surgical management is presented.

Key words: Pyometra – vaginal fibroma – surgical management - bitch

I. Introduction

Canine pyometra is an infectious and inflammatory disorder of the uterus typically occurring in adult, intact bitches during or immediately after the luteal phase of estrous cycle. Vulvar and vaginal tumours account for 2-3% of neoplasms (Thatcher and Bradley, 1983; Jubb et al., 1993) and are relatively uncommon in dogs (Thatcher and Bradley, 1983). They are mostly benign and are referred to as leiomyomas, fibroleiomyomas, fibromas and polyps. The present clinical report describes surgical removal of a pyometra affected uterus and vaginal fibroma in a bitch.

II. Case History and Observations

An eight year old intact spitz bitch was presented to Madras Veterinary College Teaching Hospital, one month post estrus with chief complaints of anorexia and vaginal discharge since one week. General clinical examination revealed that all vital parameters were within normal limits. Vaginal examination revealed pale mucous membrane and foul smelling pus discharge from vulva. Abdominal palpation revealed distension of abdomen.

Ultrasonographic examination of abdomen revealed anechoic sacculations in uterus suggestive of pyometra. Radiography showed radiopaque distended uterus suggesting uterine involvement. Haematological and biochemical analysis of the blood revealed an increase in the leucocyte count and increased blood urea nitrogen, creatinine and AST values. Based on the results of clinical examination and special diagnostic procedures the case was confirmed as an open cervix pyometra.

III. Treatment and discussion

A case of pyometra constitutes a potentially life-threatening emergency; treatment must be prompt and aggressive. Young bitches with open cervix pyometra may be treated medically using prostaglandins. But for the older bitches which are not intended for future breeding, ovariohysterectomy is the choice of treatment. Since the presented case was an eight year old bitch and the owner was also not interested in future breeding, it was decided to go for Ovariohysterectomy. Following stabilisation with intravenous fluids, the bitch was aseptically prepared for surgery and pre-anaesthetised with injections xylazine @1mg/kg

intramuscular and atropine sulphate @ 0.04 mg/kg subcutaneous and general anaesthesia was induced with ketamine and diazepam at 10mg/kg and 0.05mg/kg intravenous, respectively. The anaesthesia was maintained with 1/3 – 1/2 dose of the induction combination.

Skin and abdominal muscles were incised as per standard procedure through mid ventral approach and peritoneum was successfully intervened. Following abdominal incision, the ovarian ends were ligated and severed. While attempting for the ligation of cervical end, two vaginal tumour masses (4 cm and 2 cm) were found. The cervical end was carefully ligated and resected without disturbing the tumour masses and subsequently the tumour masses were also severed and removed. Histopathological analysis of the masses revealed it to be an angiofibroma. Post operative treatment with antibiotic and intravenous fluids and supportive therapy was continued for 7 days and the bitch recovered uneventfully.

The tumors of vulva and vagina are mostly benign and accounts for around 2-3 % of neoplasms in dogs. Out of them leiomyomas and fibromas are most common. A uterine leiomyosarcoma accompanied by pyometra and nodules throughout uterus was reported in a cat by *Miller et al.*, (2003). *Dinesh et al.*, (2011) reported a case of CEH and pyometra complex along with a cervical tumor and its successful surgical management in a bitch. Vaginal masses are asymptomatic unless protruded from the vulva and they can only be discovered by chance during vaginal examination (*Sabuncu et al.*, 2014). In the present case the tumor mass was located in the anterior vagina and hence it could not be palpated through vaginal examination. But it was accidentally observed during ovariohysterectomy and was extirpated completely. Surgical resection of the neoplastic tissue is the treatment of choice for benign vaginal tumours (*Sontas et al.*, 2010). If the benign tumor mass is excised entirely it will increase the mean survival time by 18 months and the bitches will have good prognosis (*Thatcher and Bradley*, 1983). In the bitches suffering from benign vaginal tumours, when ovariohysterectomy was performed at the time of tumour mass removal 0% recurrence was reported, whereas in the bitches where ovariohysterectomy was not performed, a local recurrence rate of around 15 % was observed (*Herron*, 1983; *Withrow and Susaneck*, 1986). In the present case ovariohysterectomy was performed followed by which the two tumor masses were extirpated through the laparotomy incision.

IV. Summary

Successful surgical management of a vaginal fibroma along with ovariohysterectomy without any complication is reported in a bitch.

Bibliography

- Dinesh, P.T., Jeyakumar, C., Sooryadas S., Amritha Aravind and Leeba chacko. (2011) CEH-Pyometra and Leiomyoma of Cervix Associated With Ovarian Cyst in a Female Dog. *Int J Am Vet Med Asso*, 5(4): 379 - 382
- Herron, M.A. (1983) Tumors of the canine genital system. *J Am Hosp Assoc*, 19:981 - 994
- Jubb, K.V.F., Kennedy, P.C. and Palmer, N. (1993) *Pathology of domestic animals*, 4th edition. Academic press, San Deigo, ABD
- Miller, M.A., Ramos-Vara, J.A., Dickerson, M.F., Johnson, G.C., Pace, L.W., Kreeger, J.M., Turnquist, S.E., Turk, J.R. (2003) Uterine neoplasia in 13 cats. *Journal of Veterinary Diagnostic Investigation* 15, 515-522.
- Rollon, E., Millan, Y. and Martin De Las Mulas, J. (2008) Effects of aglepristone, a progesterone receptor antagonist in a dog with a vaginal fibroma. *J Small Anim Pract*, 49: 41-43.

- Sabuncu A, Enginler SÖ, E Karaçam, Z Günay, T Demirlek, Ö Erdoğan, C Tek and A Gurel (2014) Excision of a vaginal benign peripheral nerve sheath tumor (Neurofibroma) from abdominal cavity in an intact bitch. *Inter J Vet Sci*, 3(1): 43-45.
- Sontas, B.H., Altun, E.D., Guvenc, K., Arun, S.S. and Ekici, H. (2010) Vaginal neurofibroma in a hysterectomized poodle dog. *Reprod Domes Anim*, 45: 1130-1133
- Thathcer, C. and Bradley, R.L. (1983) Vulvar and vaginal tumors in thje dog: a retrospective study. *J Am Vet Med Assoc*, 183: 690-692
- Withrow, S.J. and Susaneck, S.J. (1986) Tumors of the canine female reproductive trat, in: Morrow DA (editor), *Current therapy in Theriogenology*, 2nd edition, WB Saunders, Philadelphia, pp: 525 - 527.