The Pharma Innovation Journal 2023; 12(5): 3277-3278

www.ThePharmaJournal.com

The Pharma Innovation

ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; 12(5): 3277-3278

www.thepharmajournal.com
Received: 03-03-2023
Accepted: 07-04-2023

Neithono Kuotsu
College of Veterinary Sciences & AH, CAU, Jalukie, Nagaland, India

Vikshe Sumi
Veterinary Assistant Surgeon, Government of Nagaland, India

Khwairakpam Ratika
College of Veterinary Sciences & AH, CAU, Jalukie, Nagaland, India

Keneisezo Kuotsu
College of Veterinary Sciences & AH, CAU, Jalukie, Nagaland, India

Rajkumar James Singh
Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh, India

Corresponding Author:
Neithono Kuotsu
College of Veterinary Sciences & AH, CAU, Jalukie, Nagaland, India

Surgical management of open cervix pyometra in a local bitch: A clinical case report

Neithono Kuotsu, Vikshe Sumi, Khwairakpam Ratika, Keneisezo Kuotsu and Rajkumar James Singh

Abstract
An 8-year-old local bitch was brought in with complaints of sanguino-purulent vaginal discharge, lethargy, polyuria, abdominal distension, and lack of appetance by the owner. After a clinical diagnosis of open cervix pyometra, ovario-hysterectomy (OHE) was effectively used to treat the dog. This is the first reported case of open cervix pyometra in a local dog in Dimapur, Nagaland.

Keywords: Bitch, sanguino-purulent, pyometra, ovario-hysterectomy

Introduction
Canine pyometra is a frequent reproductive disorder of intact, diastrual bitch affects nearly one fourth of all female dogs before they reach ten years of age. The incidence of pyometra in dogs is approximately 24% before 10 years of age. (Baithalu *et al.*, 2010, Hagman, 2000) [1, 4]. Pyometra is the accumulation of pus inside the uterine lumen, generally occurring during or immediately following a period of high progesterone dominance and can be classified as an open and a closed cervix pyometra. Progesterone primed conditions influence hyperplasia of the endometrium and endometrial glands and stimulate the uterine glandular secretions within the uterus, which suppresses the uterine contractions (Cox, 1970) [2] which in return inhibit the local leukocyte response to infection which allows for bacterial proliferation within the uterine lumen. The secretions of these glands provide an excellent environment for bacteria that enter the uterus from the vagina. The bacteria on gaining entry to the uterus through the various infectious route like vaginal infection, urinary tract infection or faecal contamination, establishes a bacterial infection in the uterus and multiply there leading to pyometra. Escherichia coli are the main causative agent in approximately 90% of the cases (Susi *et al.*, 2006) [8].
Clinical signs are generally manifested with lack of appetite, depression, polydipsia, lethargy, and abdominal distension. Fever may or may not be present. Pyometra can be treated either by surgical intervention or by therapeutic management. However, the conclusion depends on numerous factors such as open or closed cervix pyometra, whether future breeding is intended for the bitch and the health status of the animal. Other treatment options can be considered but the effective and popular methods for the treatment of pyometra is ovario-hysterectomy (OHE) (Feldman and Nelson, 2004; Johnston *et al.*, 2001) [3, 5].

Case History
An 8 year old intact bitch was brought with a history of sanguino-purulent vaginal discharge for more than a week, polyuria with inappeatance. On clinical examination, the dog was found to be dull and depressed, with frequent licking of the vaginal discharge. The animal has no prior history of treatment. On clinical examination, the dog was found to be quite normal with the exception of vaginal discharge, swollen vulva, abdominal distension and a poor body condition.

Treatment
The animal was placed in dorsal recumbency and for the aseptic surgery; preparation of the caudal mid ventral abdomen was done. OHE was aseptically performed according to the standard procedure. General anaesthesia was induced and maintained by a combination of ketamine hydrochloride @ 5 mg/kg and diazepam @ 0.2 mg/kg body weight intravenously following premedication with atropine sulphate @ 0.04 mg/kg body weight.

Fig 1: Uterine horn filled with sanguino-purulent pus

Laparotomy was performed through caudal mid ventral abdominal incision and the pus filled uterine horns and body were carefully removed (Fig 1). The laparotomy incision was closed by following routine standard procedures. The abdominal wall was closed with catgut according to the standard procedure. The following postoperative treatment was given: Ceftriaxone @ 20 mg per kg body weight for 5 days, meloxicam for 3 days, metronidazole @ 15 mg per kg body weight for 3 days and vitamin B-complex injection @1 ml daily for one week. The animal recovered uneventfully.

Discussion

Vaginal discharge, lethargy, polyuria, polydipsia, emesis, and hyperthermia followed by hypothermia are the most common clinical symptoms associated with pyometra. (Verstegen, 2006) [9]. Singh *et al.,* (2008) [7] has opined that therapeutic management of canine pyometra is successful in the early stages and ovariohysterectomy (OHE) is the choice of treatment in late phases of pyometra (Roberts, 1971) [6]. As the bitch is aged and since aged bitches are more predisposed to pyometra because of the number of times the endometrium is exposed to progesterone production, ovariohysterectomy was opted in this case. Since in pyometra, ovariohysterectomy is complicated and carries a risk of infection post surgery than routine spaying because of infection so a course of antibiotics was also administered. Spaying of all female dogs that are not meant for breeding before six months of age is recommended to prevent the occurance of pyometra in dogs.

References

1. Baithalu RK, Maharana BR, Mishra C, Sarangi L, Lipismita Samal L. Canine Pyometra. Vet. World. 2010;3(7):340-342.
2. Cox JE. Progestagens in bitches: A review. J Small Anim. Prac. 1970;11:759-778.
3. Feldman EC, Nelson RW. Cystic endometrial hyperplasia /pyometra complex in canine and feline endocrinology and reproduction. In Canine and feline endocrinology and reproduction, Kersey, R. And D.LeMelledo (Eds.).3rd Edn., W.B. Saunders Company, USA; c2004. p. 847-860.
4. Hagman R. New aspects of canine pyometra. Ph.D thesis. The Swedish university of agricultural sciences, Uppsala, Sweden; c2000.
5. Johnston SD, Kustritz MVR, Olson PNS. Disorders of the canine uterus and uterine tubes in canine and feline theriogenology. In: Canine and feline theriogenology, Kersey, R. And D.LeMelledo (Eds).. W.B. saunders Company, USA; c2001. p. 174-220.
6. Robert SJ. Infertility in bitches and queens. Veterinary Obstetrics and Genital Diseases. 2nd edn, (CAB Publisher and Distributors, India.,); c1971. p. 227-236.
7. Singh KP, Singh BK, Singh B, Singh JP, Singh P, Singh HN. Pyometra in bitches two case reports. Intas. Polivet. 2008;9(2):99.
8. Susi A, Iris R, Madeleine H. Canine pyometra: new approaches to an old disease. Proceedings of the 31st world small animal veterinary conference (WSAV'06), Czech Republic; c2006, p. 691-692.
9. Verstegen J, Karine. Pyometra in the bitch and queen. Proceedings of North American Veterinary Conference. 2006;20:7-11.