Surgical Management of Stump Pyometra in a Bitch - A Case Report

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Abstract

A nine year old Labrador bitch was presented to clinic with a complaint of white discharges from vagina for one month which was treated by local vet for past 15 days. It was said to have been subjected for ovariohysterectomy for pyometra condition two years previously. Based on findings of clinical examination, radiography and ultrasonography it was diagnosed as stump pyometra and was corrected surgically. The intraoperative findings and clinical outcome were discussed.

Key words: Ovarian Remnants, Pus Discharges, Stump Pyometra

Introduction

Ovariohysterectomy (OHE) is a common surgical technique performed in female dogs and cats as a birth control procedure. One of the major complications of OHE is incomplete removal of ovaries or uterus which may result in a pathological condition like stump pyometra (Johnston et al., 2001). Remnants of functional ovarian tissue after ovariohysterectomy cause hormonal imbalance and predispose to a condition called stump pyometra (Okkens et al., 1981). Symptoms of stump pyometra are similar to those of pyometra in intact bitches. In the present case report the clinical findings, diagnosis and surgical management of stump pyometra were discussed.

History and Diagnosis

A nine year old Labrador bitch was presented to the clinics with a history of pus discharges from the vagina for one month which was said to have been treated by a local veterinarian with antibiotics. Clinical signs like vomiting, anorexia etc. were noticed. Hemogram revealed severe neutrophilia with shift to left condition and anemia.
Serum biochemical analysis revealed elevated blood urea nitrogen and creatinine levels. Abdominal palpation revealed a mass adjacent to bladder. Lateral abdominal radiograph revealed fluid dense structure adjacent to the bladder (Fig -1). Ultrasonography of abdomen revealed an anechoic sac, compressing at neck of the bladder (Fig-2). Based up on the clinical signs, radiographic and ultrasonographic findings the condition was diagnosed as stump pyometra and was corrected surgically.

**Fig 1:** Skiagram showing a fluid dense mass beside urinary bladder

**Fig 2:** Photograph showing ultra sonogram of distended uterine stump at neck of bladder
Treatment and Discussion

Animal was prepared for aseptic surgery and premedicated with atropine at the dose rate of 0.44 mg per Kg body weight, and induced anaesthesia with Ketamine Hcl and Diazepam at dose rate of 5 mg and 0.5 mg per Kg body weight respectively. Anaesthesia was maintained by Isoflurane anesthesia. Caudal mid ventral laparotomy was performed and the uterine stump with pathology was explored (Fig 3). Stump was resected and closed with parker kherr sutures. The laparotomy wound was closed as per standard procedure. Post operatively animal was given ceftriaxone sodium at the dose rate of 25mg per Kg body weight for 7 days, Meloxicam at the dose rate of 0.2mg per Kg body weight for 3 days and supportive therapy with multivitamin tonics orally for 15 days. Animal recovered uneventfully at the end of 12th post operative day.

Ovariohysterectomy is considered to be most reliable method to control population in dogs and cats. The purpose of ovariohysterectomy is not only to control the population but also to avoid veneral diseases, cyclic activity of animals, serosanguinous discharges from vulva which are seen in an intact female dog. Moreover, ovariohysterectomy is only the promising choice to treat pyometra condition in bitches. In the present case, remnants of ovary and uterine tissue retained at the time of previous ovariohysterectomy might have led to stump pyometra. Similar conclusions were also made by Dillon and Handerson(1981) in stump pyometra of bitches. Adhesions between the uterine stump and bladder were noticed and were separated bluntly during surgery in the present case. Similar intraoperative findings were also observed by Musal and Tuna(2005) during stump pyometra. Removal of ovarian remnants’ and infected uterine stump was performed after proper ligation of their bases in the present case, which was indicated during stump pyometra in bitches by sontas et al (2007).

To conclude stump pyometra can be prevented by performing ovariohysterectomy in right procedure, proper positioning of sutures and removal of ovaries and uterine tissue without any remnants.
References