PYOMETRA WITH UNILATERAL HORN EVACUATION IN A SPITZ BITCH

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ABSTRACT

A four and half year old Spitz bitch was presented with vulval discharge, diagnosed for pyometra and therapeutically treated for seven days. The treatment resulted in evacuation of pus from unilateral horn. The animal was further recommended for ovariohysterectomy and had an uneventful recovery.

Keywords: Bitch, Horn, Prostaglandin, Pyometra, Uterus

INTRODUCTION

Canine pyometra is a hormonal mediated diestrual disorder resulting from bacterial contamination of uterus leading to bacteremia, toxemia and sometimes becomes fatal (Sridevi, 2015). Literally, pyometra is accumulation of pus in the uterus involving both the uterine horns and classified as open or closed type based on the presence of vulval discharge. The present report describes a case of therapeutically treated pyometra ending with evacuation of pus from one horn and subsequently subjected to ovariohysterectomy.

CASE HISTORY AND OBSERVATIONS

A four and half year old Spitz crossbred bitch weighing 9.0 kg was presented with the history of dull appearance, depressed behaviour and mild vulval discharge. On clinical examination, the temperature was 101°F with pale conjunctival mucous membrane. On vulval examination, the discharge appeared brownish in colour. On vaginal speculum examination, the presence of any tumor or laceration in the vaginal passage was ruled out. On ultrasonographic imaging, fluid accumulation in the uterus was appreciated by anechoic sacculations on both sides (Figure 1). Radiographic imaging also showed a dense tubular fluid filled uterus. The hematological value showed absolute neutrophilia 24,000 cells/mm^3 with shift to left and serum biochemistry of Blood Urea Nitrogen and Creatinine were in the upper reference range.

TREATMENT AND DISCUSSION

The treatment was initiated with intravenous fluids (200 ml, 5% dextrose normal saline) for stabilization and administration of synthetic prostaglandin injection cloprostenol sodium (2 µg/kg b wt, subcutaneously SID, on 1st day and increased to 4 µg/kg on 3rd day and continued for 4 more days). Atropine sulfate was administered (1.0 ml, subcutaneously) about 40 minutes before the cloprostenol sodium to prevent excess parasympathetic activity.

Ultrasonographic imaging was performed on alternate days to observe the fluid evacuation. The owner observed scanty vaginal discharge (brownish coloured). In addition, antibitotic ceftriaxone sodium and tazobactom (20 mg/kg b wt) was administered for 5 days. On 7th day of ultrasonic examination, the sacculations was reduced on one side and few anechoic sacculations were persistent on left side of the uterus. Since it was seven days of therapeutic intervention, it was decided to perform ovariohysterectomy. Using standard operative procedures, the surgery was performed to remove the uterus and ovary. On post-operative examination about 10 days later, the animal

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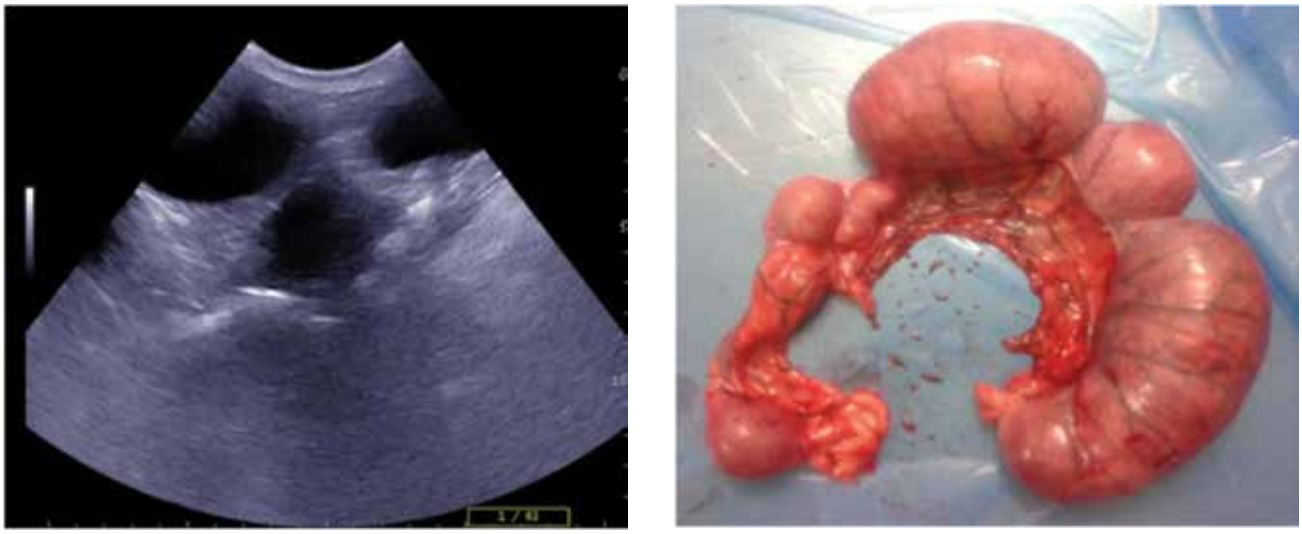

Figure 1: Left - Ultrasonographic Image of anechoic sacculations, Right - Unilateral horn evacuated after treatment

had an uneventful recovery.

The examination of uterus revealed that one uterine horn has almost evacuated the fluid present in it and another uterine horn was completely filled with the fluid that indicated the resistance to the prostaglandin treatment.

To initiate luteolysis and to prevent progesterone to bind with its receptors, prostaglandins and progesterone receptor blockers are commonly used for the treatment of open cervix pyometra (Baithalu *et al.,* 2010). In addition, the objective of prostaglandin treatment was to initiate smooth muscle contractions and cervical dilatation which in-turn promotes uterine evacuation. However, this fails to happen in all the cases, and sometimes tehre is partial evacuation. In fact, the efficacy of therapeutic treatment depends on many factors which include age, bacterial species, bacterial toxins and immune response. The presence of bacterial toxins may produce undifferentiated virulence factor especially cytotoxic necrotizing factor due to extensive endothelial damage (Arnold, 2006), which could have resulted in modulation of inflammatory response. The toxins produced in the one horn may differ from other horn and the inflammatory response produced by the one horn could also be different from the other horn due to the mixed infections. Hence, this could be the one of the cause for partial evacuation of uterine fluid in the present case.

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