



Successful Management of a Critical Case of Pyometra in a Bitch: A Case Report

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Abstract

An intact six year old female German shepherd dog with vomitings and regular increase in size of the abdomen without any vaginal discharge was presented to the clinic. By ultrasonography it was confirmed as pyometra and treated it with ovariohysterectomy after making it fit for surgery using medical treatment.

Keywords: German shepherd, pyometra, ovariohysterectomy, laparotomy.

Introduction

Pyometra is a condition mainly of middle aged female dogs that have not been spayed. It is a hormonally mediated, diestrual disorder that results in abnormal uterine endometrium¹. By definition, pyometra is accumulation of pus within the uterus due to progesterone dominance². It is classified as open and closed cervix pyometra. Closed cervix pyometra is comparatively serious in nature because of absorption of toxins from the accumulated pus and consequent development of toxemia. Hence it requires immediate diagnosis and treatment. This paper communicates successful management of closed cervix pyometra in a bitch.

Case history and clinical signs

A six year old intact female German shepherd dog was presented to clinic with a history of inappetence, vomitions and regular increase in size of the abdomen for 20 days. On clinical examination, no vaginal discharge was observed and temperature, pulse and respiratory rate were 100.2°F, 98/min and 68/min respectively.

Haematology revealed PCV-63%, leucocytosis with neutrophilia and predominant shift to left. The visible conjunctival mucous membrane was dry, pale and deeply congested indicative of toxemia and dehydration. Serum biochemical parameters like blood urea nitrogen and creatinine were 37 and 3.6 mg/dl respectively indicate renal involvement and uremic gastritis. Real time B mode ultrasonography disclosed distended, anechoic to hypoechoic sacculations in both the horns (figure: 1 and 2). Based on the above findings, it was confirmed as closed cervix pyometra and medical treatment was initiated for one week with DNS-500ml, RL-500ml, cefotaxime sodium-500mg, dexamethasone- 4 mg, ranitidine - 1ml and metaclopramide -1ml to stabilize the patient. After one week the patient was thoroughly re-evaluated and the temperature was 102.4°F, the blood picture revealed a leucocytic

count of 8.6 millions/cmm with mild neutrophilia. PCV was found to be in the order of 42%. The visible mucous membranes became roseate but the abdominal distension remained same. Hence, radical surgery was planned and fasting was advised.

Treatment and Discussion

The animal was controlled in dorsal recumbency and the caudal mid ventral abdomen was prepared for aseptic surgery. General anesthesia was induced and maintained by a combination of ketamine hydrochloride @ 5mg/kg and diazepam @ 0.2mg/kg body weight intravenously following premedication with atropine sulphate @ 0.04mg/kg body weight. Laparotomy was performed through caudal mid ventral abdominal incision and the heavy pus filled uterine horns and body were carefully exteriorized after thoroughly packing the abdominal wound (Figure:3). The ovaries, ligaments and blood vessels were carefully identified and resected after application of modified transfixation ligatures. The laparotomy incision was closed by following routine standard procedures. It is interesting to note that the animal lost about 3kgs of body weight immediately after surgery. The following postoperative treatment was adopted: DNS-300 ml, metroniazole-100ml daily for one week, cefotaxime sodium-500 mg daily for 5 days, meloxicam-1.5ml daily for 3 days and B-complex -1 ml daily for one week. Haematology was carried out weekly to monitor the response to treatment. By 15th postoperative day, cutaneous sutures were removed and the bitch appeared active with good appetite.

Pyometra is best managed either by medical or hormonal therapy (prostaglandins) in patients not fit for surgery. However, adverse side effects ranging from simple allergy to anaphylactic reaction were reported after prostaglandin therapy by several researchers. Hence, Prostaglandins were not administered to the patient, considering the severity of the case at the time of presentation to the clinic. The side effects of prostaglandins outweighed the benefits of prostaglandins in systematically compromised dogs³. In pyometra, ovariohysterectomy is always

more complicated and carries a higher risk than routine spaying because of infection. This justifies the use of cefotaxime sodium, fluid therapy and a corticosteroid to stabilize the patient. Blood tests were carried out weekly to assess the prognosis of the case.

The choice of ovariectomy was to stop the endotoxaemia and avert probable kidney failure⁴. The success rate of medical and surgical treatment of closed pyometra was 60 and 80% respectively⁵. It was recommended that the best prevention for pyometra would be to spay all female dogs that are not meant for breeding before six months of age⁴.

Conclusion

It was concluded that ovariectomy may be the best treatment of choice in closed pyometra of bitches.

References

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Figure-1

Photograph showing anechoic to hypoechoic sacculation (s) in right uterine horn (RUH) on scanning in a dog. UB-urinary bladder

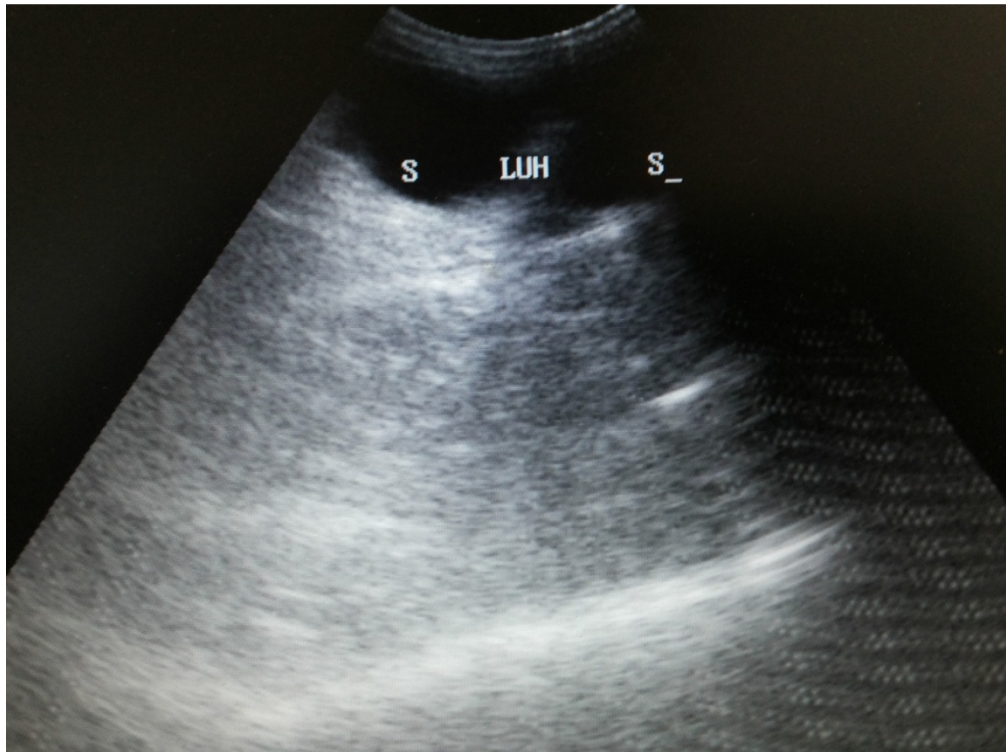


Figure-2

Photograph showing anechoic to hypoechoic sacculations (s) in left uterine horn (LUH) on scanning in a dog

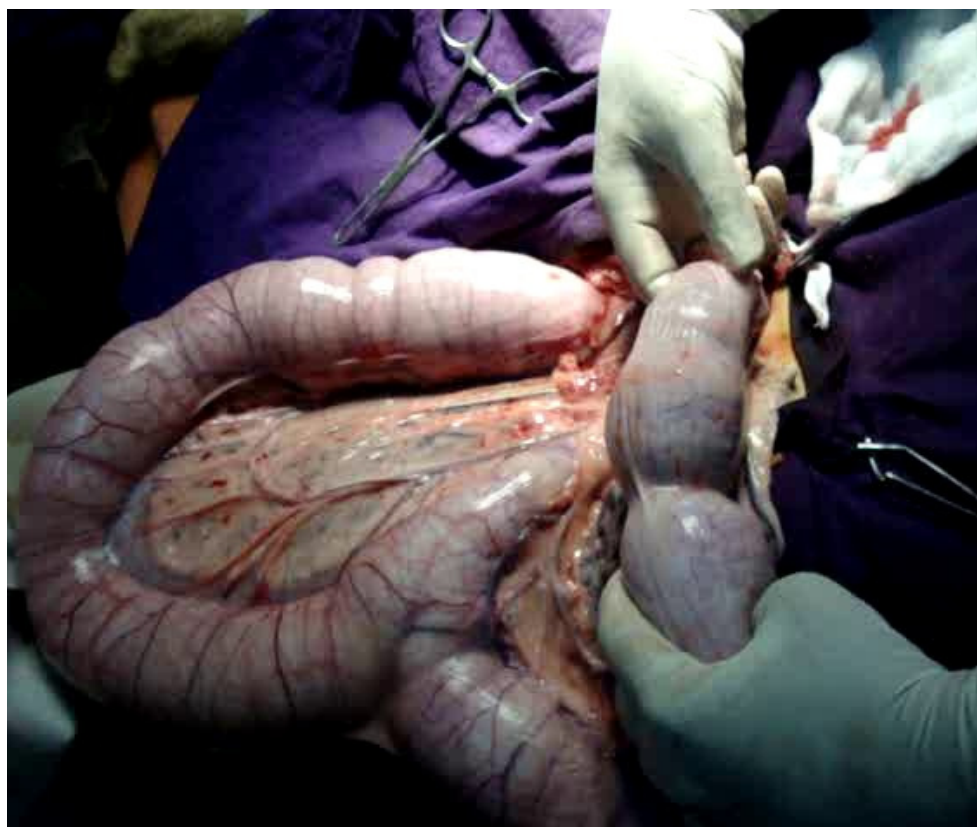


Figure-3

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