

Pyometra in a Female Dog - A Case Report

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ABSTRACT

A seven year old Labrador bitch was presented to Veterinary Clinical Complex, Faculty of Veterinary Science and Animal Husbandry, SKUAST-J, RS Pura, Jammu, with the history of abdominal distention, sanguino-purulent vaginal discharge, vomiting, polyuria, polydipsia lethargy, depression and pyrexia. Treatment was initiated immediately but the bitch had died after two days. Post mortem examination revealed presence of distended uterus having congested serosa and accumulation of yellow to greenish thin watery off smelling exudate. The detail gross and histopathological changes of the uterus in the pyometra affected bitch were presented in the case study.

Key words: Myometrium, Neutrophilia, Polydipsia, Pyometra, Uterus

INTRODUCTION

Pyometra is a common uterine pathology in which enlargement of uterus with accumulation of pus in the uterine lumen occurs. It affects middle aged to older female dogs from 6.4 to 9.5 years (Gibson *et al.*, 2013). The disease has been shown to affect around 19% of all female dogs before the age of 10 years (Jitpean *et al.*, 2012). Pyometra develops due to secondary infection following progesterone mediated thickening of uterine wall, commonly known as cystic endometrial hyperplasia (Feldman and Nelson, 2004).

Case History and Methods

A female Labrador was presented to Veterinary Clinical Complex, Faculty of Veterinary Science and Animal Husbandry, SKUAST-J, RS Pura, Jammu. The bitch was suffering from high fever and was anorectic, depressed, had abdominal distention along with sanguino-purulent vaginal discharge. Fluid therapy and antibiotic therapy was initiated immediately. Blood sample was collected for haematology. On haematology neutrophilia with left shift was evident. The bitch was treated with lutalyse @ 1.5 mg/kg bid I/M for 1-2 days followed by 0.25mg/kg for next 5-7 days but within 2 days the animal died and the carcass was subjected to post mortem examination. Samples were collected from the uterus for microbial culture and histopathological examination.

RESULTS AND DISCUSSION

On necropsy examination, an enormously

enlarged uterus was found to occupy the abdominal cavity (Fig. 1). The serosal wall of uterus was severely congested and the uterine tissue was friable. The liver was dark reddish black in colour and the lungs were heavy, edematous and congested. Kidneys were soft and friable and mild congestive and haemorrhagic lesions were appreciated in the gastrointestinal tract. Dissection of uterus yielded approx. 5L of greenish brown exudate (Fig 2). The wall of the uterus was thin. On histopathology, the mucosa of the uterus was severely effected and in a few places remnants of endometrial epithelium could be appreciated. The inflammatory exudate comprised of lymphocytes, plasma cells and neutrophils were present which was supported by the earlier findings (Pretzer 2008; Biswas *et al.*, 2012). Uterine glands were atrophied (Fig. 3). In bacteriological examination, presence of



Fig 1: Severely dilated uterus occupying entire abdominal cavity



Fig 2: Cut open uterus with thin wall and exudate adhering to it

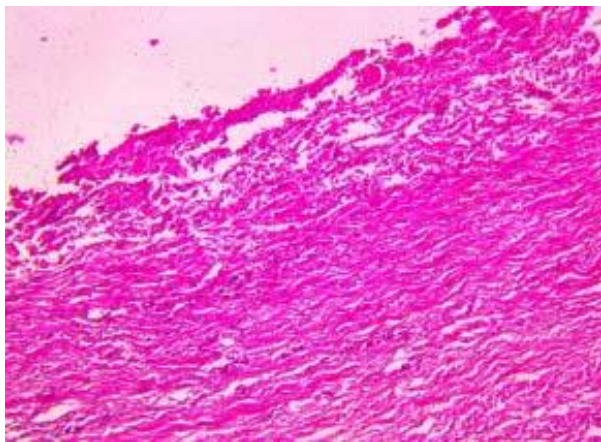


Fig 3: Necrosis & degradation of endometrial lining, presence of inflammatory cells and obliteration of endometrial gland. (H&E, 400X)

Staphylococcus aureus was confirmed after culturing of the exudates on mannitol salt agar for 12 hours

and appearance of golden yellow colonies in the plate. Phenotypic identification of the bacteria was done using Gram's staining and coagulase

test.

In conclusion, the present case study suggests a case of closed cervix pyometra caused by *Staphylococcus aureus*. Uterine histopathology indicated the protracted inflammation, necrotic changes of the uteus and atrophic endometrial glands associated with the closed pyometra in the bitch.

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