

SURGICAL MANAGEMENT OF CRITICAL OPEN PYOMETRA IN A LABRADOR BITCH

G. Kamalakar^{1*}, M. Varalakshmi², B. Chandra Prasad³ and G. Vani⁴

¹Assistant Professor, ²Internee, College of Veterinary Science, Tirupati, ³Assistant Professor
and Head, Department of Veterinary Gynaecology and Obstetrics, ⁴Associate Professor.

Department of Veterinary Clinical Complex, NTR College of Veterinary Science,
Gannavaram, Sri Venkateswara Veterinary University, Andhra Pradesh - 521102

E-mail: drkamallvet@gmail.com (*Corresponding author)

Abstract: An adult intact Labrador retriever bitch was presented to college clinics with a history of vomiting, purulent vaginal discharge, anorexia, lethargy, polydipsia and abdominal discomfort for four days. It was diagnosed to be suffering from open pyometra based on clinical, radiographic, ultrasonographic and haematological evaluation. An emergency ovario-hysterectomy was performed and with good post operative care and management, the pet recovered uneventfully.

Keywords: Labrador bitch, open pyometra, diagnosis, ovariohysterectomy.

INTRODUCTION

Pyometra is a potentially life-threatening pathological condition of intact bitches characterized by accumulation of purulent exudate within the uterine lumen (Kumar and Saxena, 2018). This condition was typically observed in middle aged and older bitches. Though specific aetiology was not known, prolonged period of progesterone dominance along with abnormal response to oestrogen may lead to hormonal changes in the endometrial layer (Smith, 2006). Pyometra was generally classified as open or closed depending on the cervical patency. Clinical signs commonly included anorexia, lethargy, polydipsia, polyuria, vomiting, abdominal distension (Verstegen *et al.*, 2008). Pyometra was best diagnosed using ultrasonography and radiography (Kumar *et al.*, 2023). Ovariohysterectomy remains the treatment of choice in systemically compromised patients. Prompt diagnosis and rapid surgical intervention are critical to prevent systemic inflammatory response syndrome (SIRS), multiple organ dysfunction, and death (Bertero *et al.*, 2024).

CASE HISTORY AND CLINICAL EXAMINATION:

A five year old intact Labrador retriever bitch weighing about 30 kg was presented to Dept. of Veterinary Clinical Complex, NTR College of Veterinary Science, Gannavaram, Andhra Pradesh with a history of foul smelling purulent vulval discharge for four days. The owner reported dullness, vomiting, lethargy, inappetence, and polydipsia. Clinically it was pyrexia

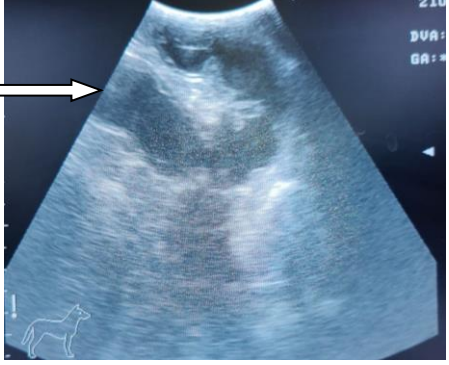
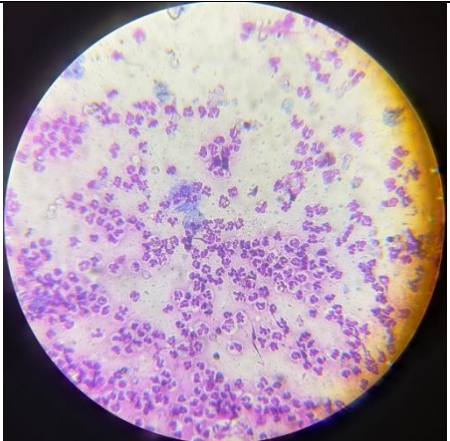
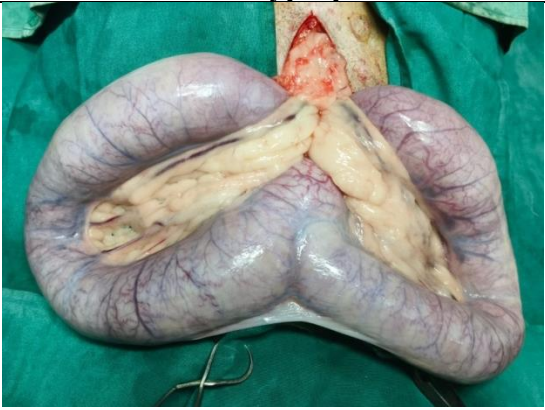
(105°F) with marked abdominal distension and felt pain on palpation. Haemogram revealed marked leukocytosis with neutrophilia and a left shift. Serum biochemistry showed moderately elevated BUN, creatinine and alkaline phosphatase levels. Lateral abdominal radiography revealed distended and fluid filled uterine horns (Fig. 1). Abdominal ultrasonography displayed multiple anechoic fluid-filled sacs (4.1×3.6 cm in diameter) with markedly distended uterine horns and thickened walls (Fig. 2). Vaginal cytology showed abundant neutrophils (Fig. 3). Based on these findings, the case was diagnosed as open pyometra, and ovariohysterectomy was performed as the treatment of choice.

TREATMENT AND DISCUSSION

The dog was stabilized with RL (@ 10 ml/kg), inj. cefotaxime (@ 25 mg/kg) and inj. meloxicam (@ 0.2 mg/kg) IV. It was premedicated with inj. atropine (@ 0.04 mg/kg SC), general anaesthesia was induced using inj. midazolam (@ 0.2 mg/kg) and inj. ketamine (@ 5 mg/kg) IV and maintained with isoflurane in oxygen. With an aseptic ventral midline celiotomy incision, the distended uterine horns were carefully exteriorized (Fig. 4). Ovariohysterectomy was performed using the triple clamp technique as per standard protocol. Post-operatively, the dog was administered with tab. Carprofen @ 4 mg/kg, tab. cephalixin @ 25 mg /kg, tab. pantoprazole @ 40 mg/kg BW for seven days and syp. Sharkoferrol pet PO for 15 days. Alternate day dressing with povidone iodine and Alu spray was done and the skin sutures were removed on 12th post-operative day.

Pyometra is a common and life-threatening uterine disorder in intact bitches, typically occurring during diestrus due to progesterone-mediated endometrial changes and secondary bacterial infection (Smith, 2006; Verstegen *et al.*, 2008). The clinical signs observed in the present case, including vomiting, lethargy, inappetence, polydipsia, and purulent vulvar discharge, were consistent with previous reports of Kumari *et al.* (2010) and Kumar *et al.* (2023). The presence of vulvar discharge indicated an open cervix, marked leukocytosis with neutrophilia and left shift observed in this case indicated systemic inflammatory response and bacterial infection, while mild anaemia might be attributed to chronic infection and endotoxemia (Kumar and Saxena, 2018). In the present case, ultrasonography revealed distended uterine horns containing multiple anechoic fluid-filled sacs, which were characteristic of pyometra as reported by Kumar *et al.* (2023) and Xavier *et al.* (2023). Ovariohysterectomy was widely considered as the treatment of choice as it ensures complete removal of the infected uterus and prevents recurrence (Verstegen *et al.*, 2008 and Hagman, 2017). Although medical management might be attempted in selected cases, surgical

intervention remained the safest and most definitive approach. In the present case, timely diagnosis, appropriate preoperative management, prompt surgical intervention and postoperative antibiotic course resulted in an uneventful recovery, in agreement with findings reported by Bertero *et al.* (2024).

	
Fig. 1: Photograph showing distended loops of uterus filled with opaque fluid.	Fig. 2: Photograph showing distended loops of uterine horn with anechoic fluid and mild hyperplasia.
	
Fig. 3: Photomicrograph showing abundant neutrophils in the vaginal cytology (H & E x 10).	Fig. 4: Photograph showing exteriorized loops of uterine horns. Note severe distension and increased vasculature.

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