

# ENDOMETRIAL POLYP AND CEH- PYOMETRA COMPLEX IN A DOG

C. JAYAKUMAR\*, S. KANTHARAJ\*, G. SUDHA AND A. KRISHNASWAMY

Department of Veterinary Gynaecology & Obstetrics, Veterinary College, Bangalore

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**ABSTRACT**

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The current report describes an endometrial polyp and cystic endometrial hyperplasia-pyometra complex in a ten year old female Labrador dog.

**Key words:** Endometrial polyp, CEH-pyometra

## INTRODUCTION

Endometrial polyps are focal tumor-like growths projecting into the uterine lumen and consisting of benign endometrial glands in a vascularized connective tissue stroma (Gumber *et al.*, 2010). Endometrial Polyps have been frequently detected in old bitches, without any breed predisposition (Gelberg and McEntee, 1984). Occasionally, they are described as cystadenomas. Animals with endometrial polyps are often asymptomatic, but can show mucopurulent or bloody vaginal discharge (Schlafer and Gifford, 2008; Chambers *et al.*, 2011).

## CASE HISTORY AND OBSERVATION

A nulliparous, Labrador female dog aged ten years was presented to the Department of Veterinary Gynaecology and Obstetrics, Veterinary College, Bangalore with complaint of blood tinged discharge from vagina since two weeks. Physical examination revealed distinctly pale mucous membranes, dehydration and a bloody discharge from the vulva. Complete blood cell count evinced marked regenerative anemia ( $1.94 \times 10^6/\text{ml}$ ), hematocrit (10.2%), mild leukocytosis (white blood cell count,  $34.23 \times 10^3/\mu\text{l}$ ) and mild neutrophilia ( $21.34 \times 10^3/\mu\text{l}$ ). Serum biochemical profile indicated moderate increase in BUN and Creatinine levels. Abdominal ultrasound showed a pedunculated, multiloculated mass with variably sized cystic cavities surrounded by a hypoechogenic region in the left uterine lumen (Fig.1).

Based on these findings, a presumptive diagnosis was made as cystic endometrial hyperplasia- pyometra with endometrial polyp in the left uterine lumen.

## TREATMENT AND DISCUSSION

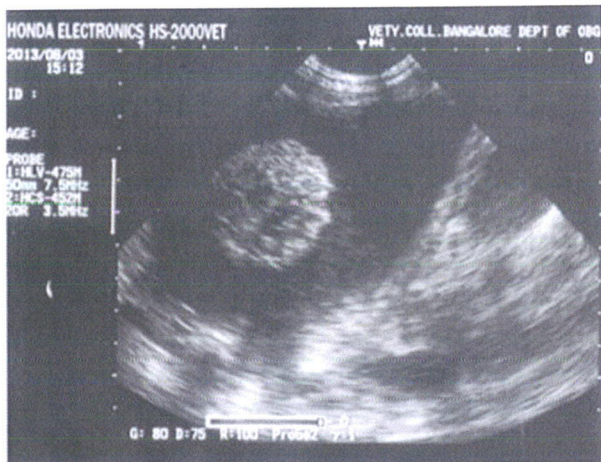
As the animal has passed its fertile age, it was decided to perform ovaro- hysterectomy under propofol and ketamine anaesthesia. A mid ventral laparotomy incision was made to remove uterus. The left horn was severely affected due to the interposed contents between the uterine lumen and polyp. The uterus was incised to expose the structure and contents. An endometrial polyp of size 4 x 3.5 x 2 cm which is unencapsulated, pedunculated, pinkish to reddish, multicystic soft mass with spongy consistency was seen attached to the endometrium by a 2-cm pedicle in the left uterine endometrium (Fig. 2). The endometrium was moderately thickened by multiple 3-4 mm fluid-filled cavities signifying cystic endometrial hyperplasia. Histologically, many variable sized glandular structures separated by abundant fibrous connective tissue with multifocal hemorrhage and the surface of the mass infiltrated with numerous inflammatory cells were evident. The glands were multifocally ecstatic, hyperplastic, and contained within a connective tissue stroma with moderate amounts of eosinophilic to basophilic material admixed with necrotic cellular debris and degenerate neutrophils.

Endometrial polyps are solitary, proliferating masses that originate from the endometrium as sessile masses or pedunculated polyps with stalks

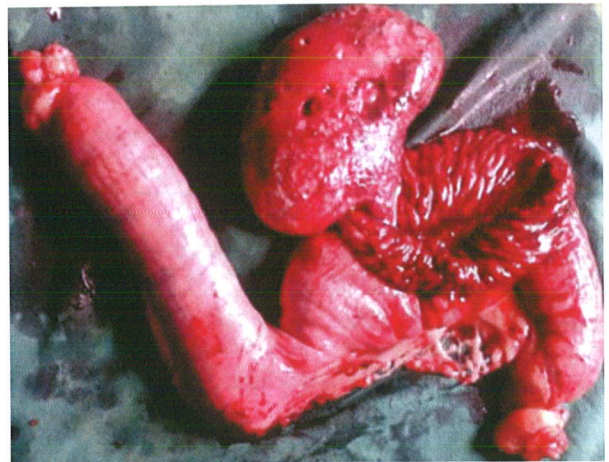
\*Ph.D students

(Gumber *et al.*, 2010). The presence of polyp is likely due to excessive stimulation of cystic endometrial glands leading to increased deposition of interstitial fibrous connective tissue (Schlafer and Gifford, 2008). Focal hyperplasia elicits a connective tissue response surrounding the cystic glands. As hyperplasia progresses, out of synchrony with the surrounding endometrium, the glands become larger and more numerous. This causes progressive elevation of the overlying mucosa with a proportionate increase in the vascular supply. The connective tissue organizes with increased age and size of the polyp. Since many of the cystic

endometrial glands have no external openings, the increase in fluid pressure may flatten the cells lining the glands and /or cause multiple evaginations of the glands (Gelberg and Mc Entee, 1984). Endometrial polyp in this report was diagnosed histologically, comprising of proliferative, well differentiated uterine glands with no evidence of metastasis. Nulliparous dog aged ten years, with many non fertile ovulations and repeated exposure to endogenous steroids might have contributed to uterine polyp and CEH-pyometra in the reported dog.



**Fig (1):** Ultrasound appearance of endometrial polyp



**Fig (2):** Endometrial polyp in left uterine horn

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