

ULTRASONOGRAPHIC DIAGNOSIS OF ENDOMETRIAL HYPOPLASIA IN BITCHES WITH PYOMETRA

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A study was conducted in twenty six (26) female dogs aged 2-8 years presented with the history of abnormal vaginal discharge, distended abdomen, anorexia, and dullness, depressed and occasional vomiting. Trans abdominal ultrasound scanning by 2.75 to 3.75 MHz sector probe revealed enlargement of uterine horns. Based on clinical examination and trans-abdominal ultrasonography endometrial hypoplasia was diagnosed. The cases were successfully treated. This paper places on record, the usefulness of ultrasonography as a tool for diagnosis of endometrial hypoplasia pyometra.

Keywords: Bitches, Pyometra, Ultrasonography.

Pyometra is a common reproductive disorder which affects nearly one fourth of all female dogs before they reach ten year of age (Egenvall *et al.*, 2001). An association between pyometra and cystic endometrial hyperplasia (CEH) has been established, the latter allows commensal bacteria originating from vagina to proliferate in uterus at the end of estrus. The progressive degenerative process of development of cystic endometrial hyperplasia is usually proposed as the initiating lesion for pyometra in bitches; this is mediated by progesterone and potentially aggravated by estrogens (Barrau *et al.*, 1975).

Case History and Observations

The 26 female dogs aged 2- 8year belonging to different breeds (Two Doberman, eight Spitz, seven Labrador, five German shepherd and four Non descript) were brought to the Department of Teaching Veterinary Clinical Complex, College of Veterinary Science and A. H., Anjora, Durg (C.G.) with complains of sero-sanguinous vaginal discharge of ten to fifteen days duration that turned purulent and foul-smelling. On clinical examination, the bitches appeared healthy but dull and rectal temperature, respiration and pulse rate were within the normal range. The endometrial hypoplasia- pyometra was diagnosed based on clinical sign and trans-abdominal ultrasound scanning. Ultrasound examination was able to clearly identify the variations in

uterine wall thickness, uterine distension due to fluid accumulation and dilation of endometrial glands. Eight bitches had mild thickening of the endometrium with very little fluid accumulation, in six bitches, the endometrium appeared thick and irregular and within the thickened endometrium were anechoic foci representing dilated cystic glands. In twelve bitches there was uterine lumen containing pus appeared as chambered formation and increase uterine lumen size with irregular surface almost completely obliterating the uterine lumen. The anechoic/ hypoechoic uterine contents were suggestive of endometrial hypoplasia with pyometra (Fig.1 and Fig.2.).

Treatment and Discussion

The female dogs were treated with inj. dextrose saline 200-500 ml daily for four days IV, injection monocef 250-500 mg IV daily for five days, Melonex 1ml IM and injection tribivet 1.5-2.5 ml IV daily for four days. The cases were followed up to 5 days, but there was no complication. Cystic endometrial hyperplasia pyometra complex commonly occurs as post estrus syndrome in middle aged or aged intact bitches as also reported by Gilbert, 1992. The disease results from bacterial interaction with an endometrium that has undergone pathologic changes from prolonged or repeated progesterone stimulation. The disease is associated with local and systemic clinical

signs along with structural and histopathological changes in ovary and uterus

as also stated by Katkiewicz and Boryczko, 2006.



Fig.1. Ultrasound of the uterine horn with closed chronic pyometra. Uterine lumen containing anechoic fluid appeared as chambered formation



Fig.2. Ultrasound of the uterine horn with distended endometrium

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