A DIFFUSE UTERINE MACRO-ABSCESS FORMATION WITH UNILATERAL PYOMETRA IN A POINTER BITCH

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Cystic endometrial hyperplasia - pyometra complex (CEH-P) is the most common uterine disease in bitches (Kennedy and Miller, 1993). In unilateral form, single uterine horn has fluid filled segmental dilatations while the other horn appears normal (Van Israel et al., 2002). Uterine abscesses due to abscession of placental sites after the abortion (Penzhorn, 1985), stumps abscess (Campbell, 2004) and ovarian bursal abscession (Van Israel et al., loc. cit) have been reported in bitches.

A case of uterine macro - abscess associated with unilateral pyometra seen in Pointer bitch is reported.

Case History and Observations

A 7 year-old multiparous Pointer bitch which was bred 5 weeks ago was referred to University Hospital with reduced appetite, vomiting and vaginal discharge.

On clinical examination, 35.4°C rectal temperature, dehydration, lack of appetite, depression, abdominal swelling, pale conjunctivae, irregular pulse and respiration were recorded. It was difficult to monitor abdominal organs by ultrasonography because of large amount of hypoechoic fluid in the whole abdominal cavity (Falco Vet 100, Maastricht, The Netherlands). Blood progesterone concentration was found to be 21.20 ng/ml by using Enzyme Immunoassay (EIA) technique (Van de Wiel and Koops, 1982). Vaginal cytology (Giemsa staining) revealed parabasal and intermediate cells and also cocci in chains both within neutrophils and extracellularly.

It was decided to perform an exploratory laparotomy. Subcutaneous atropine 0.045 mg/kg and intramuscular 2 mg/kg xylazine HCl were injected for sedation, then intramuscular 10 mg/kg ketamin HCl for anaesthesia. Median line was prepared for aseptic surgery. On opening abdominal cavity uterus was seen occupying the whole cavity, stretched and giving no space for manipulation. A blood-mixed, pungent smell fluid was carefully drained from the left horn. The left horn was 10 times greater than the right one (Fig. 1). No sign of rupture of the uterine wall was evident. Then ovariohysterectomy was carried out. Before and during surgery intravenous fluid therapy with 0.9% NaCl was administered at the rate of 3 ml/kg/hour. Antibiotic therapy was continued with cefazolin sodium 40 mg/kg iv and also given 0.25 mg/kg dexamethasone 21 undecanoate to avoid probable shock.

Longitudinal cross-section of the left
horn revealed large abscess foci with blood-mixed fluid having a pungent smell. Foci and necrotic areas of 1-3 cm in diameter were seen in mucosa. There was gross evidence of obstruction by the abscess within the left cornu uteri lumen. Cystic structures were in the right horn lumen. Tissue samples were fixed in a routine manner and stained with hematoxylin and eosin. Histopathologically, CEH was present in the left uterine horn. The lumen of cystic glands was filled with neutrophil leukocyte infiltrations and was in the form of a cartilaginous tissue. Focal abscess and purple coloured calcification was noted in the stroma of endometrium and myometrium. In addition, thrombosis was noticed in some vessels (Fig. 2). Cystic endometrial glands of the right horn and desquamated epithelium to the lumen were also noted due to necrosis. *Staphylococcus* sp. was isolated from the pus found within the uterus.

**Treatment and Discussion**

*Escherichia coli*, *Streptococcus* spp., *Staphylococcus* spp. and *Klebsiella* were the common bacteria isolated from CEH-P (Bastan et al., 2003). In this case *Staphylococcus* spp. was isolated from the uterine discharge, despite the fact that this organism is often found as a normal bacterial inhabitant of the canine vagina in healthy animals (Feldman and Nelson, 1996).

When serum P4 concentration decreased below the value of 1 ng/ml, cervix opens and uterus discharges its content. Furthermore the mean P4 concentration was 0.85 ng/ml in open cervix pyometra and 15.5 ng/ml in closed cervix pyometra (Bastan et al., loc. cit.). It was suggested that 21.20 ng/ml P4 concentration noted in this case was associated with abscess causing obstruction although, it was an open cervix pyometra with vaginal discharge. Tsumagari et al., (2005) have suggested that induction of pyometra was limited to the early stage of metoestrous under the strong influence of higher serum P4.

The data of cyst and hyperplasia formations in the uterine glands together with leukocyte infiltrations in the lumen were comparable with the previous report (Misirlioglu et al., 2005). The occurrence of cartilage - like tissue observed in glands
was unusual finding and probably attributable to an infection in the uterus that could be chronic in nature. Moreover, it was suggested that this unilateral chronic abscess formation may prevent drainage of pus.

In the present case the multiparous Pointer bitch, eventually died after ovariohysterectomy owing to septic shock the day after surgical intervention.

**Summary**

A case of uterine macro abscess associated with unilateral pyometra and cystic endometrial hyperplasia in a 7 year old multiparous Pointer bitch is reported and discussed.

**References**


**NEWS**

**INDIAN VETERINARY ASSOCIATION**

We are informed by the Organising Secretary that due to unavoidable circumstances the Indian Veterinary Association Conference stands postponed till further announcement.

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