Proceedings of the 8th International Symposium on Canine and Feline Reproduction
ISCFR

June 22-25, 2016
Paris, France

In a joint meeting with the XIX EVSSAR Congress

Reprinted in IVIS with the permission of the ISCFR Organizers
Canine pyometra - what is new?

Hagman, R
Department of Clinical Sciences, Swedish University of Agricultural Sciences, Uppsala, Sweden.
Ragnvi.Hagman@slu.se

Pyometra is a common disease, affecting in average 19% of all intact bitches before 10 years of age (1). Breed greatly influences the risk, which indicates that genetic factors may contribute to the predisposition in certain breeds (1). The disease is hormone-induced followed by an opportunistic bacterial uterine infection, but the pathogenesis is not completely understood despite extensively researched. Whether increased susceptibility of the bitch or the virulence of the infecting bacteria is most important has been debated, and may differ among age groups. The causative bacteria originate from the microbiota of each bitch i.e. are not derived from one clone or spread between different bitches. Certain bacterial strains, however, are more pathogenic than others (2). The possibility of limiting the disease by immunization against virulence factors such as *Escherichia coli* adhesins remains to be investigated (3). Pyometra is potentially life-threatening in severe cases. Early recognition of the disease and appropriate treatment is therefore crucial for a favorable outcome. Recently, biomarkers for early diagnosis and predicting prognosis has been investigated (4-6). Promising new biomarkers have been recognized, but most are not yet clinically available (4). Findings from clinical and laboratory examination may also be useful as indicators of prognosis (5, 6). Regarding surgical treatment, laparoscopically-assisted single incision ovariohysterectomy was feasible in selected cases (7). Certain analgesia and anesthesia protocols may be beneficial by subduing inflammation (8). Inflammatory variables followed during recovery may be beneficial for detection of complications (9). As for medical treatment of pyometra, a new modified protocol with aglepristone administration in combination with 6 days antimicrobial therapy was highly successful, in 47 cases, and no recurrence was reported after 2 years (10). Advancing treatment routines for pyometra, thereby improving outcome warrants further research studies. Identifying clinically useful diagnostic and prognostic biomarkers are also interesting prospects for future investigations.