

Ettinger & Feldman – Textbook of Veterinary Internal Medicine

Client Information Sheet

Pyometra

Autumn P. Davidson

What is pyometra?

Pyometra is a progesterone-mediated uterine disorder in bitches and queens. During diestrus, approximately 45 days following ovulation, elevated levels of progesterone are present. Progesterone causes changes in the uterus that are necessary for pregnancy but places the non-pregnant uterus at risk for bacterial colonization. Bacteria can reach the uterus via ascension of normal flora from the lower portion of the genitourinary tract, or less frequently, by blood-borne spread. *Escherichia coli* is most commonly isolated from both bitches and queens with pyometra.

The incidence of pyometra is thought to be greater in the bitch than the queen, presumably because the former is a spontaneous ovulator, found under the influence of elevated progesterone concentrations more frequently. An increased incidence of pyometra occurs with estrogen administration in the bitch; estrogen should not be used as a mis-mate treatment. Administration of progesterone to queens can also precipitate pyometra; progesterone compounds should not be used as anti-inflammatory or behavior modifying drugs in intact queens.

What are the symptoms of pyometra?

Pyometra can occur with or without vaginal discharge, depending on the patency of the cervix. Closed-cervix pyometra is more serious, due to the potential for uterine rupture, causing serious consequences.

The classic signs of pyometra include the following:

- Copious malodorous vaginal discharge
- Partial to complete anorexia (unwillingness to eat)
- Fever
- Lethargy
- Weight loss
- An unkempt appearance
- Vomiting and diarrhea
- Excessive thirst and urination

What tests are needed?

Blood work and urinalysis frequently detect an elevated white blood cell count, kidney insufficiency, dilute urine, and an increased progesterone level. Abdominal x-rays and ultrasound are useful in confirming the diagnosis. Pyometra can occur in one uterine horn, and even with viable pregnancy in the other.

What treatment is needed?

The treatment of choice for pyometra, following stabilization of the patient with intravenous fluids and antibiotics, is ovariohysterectomy.

Contacts for Further Information



**Animal Health
Care Center**
of Hershey

**948 E. Chocolate Ave
Hershey, PA 17033
(717) 533-6745**