

Pyometra & Endometrial Hyperplasia in Cats

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Pyometra is a disease mainly of middle-aged female cats that have not been spayed. In the past, we thought pyometra was simply a uterine infection, but today, we know that it is a hormonal abnormality, and a secondary bacterial infection may or may not be present. Pyometra follows a heat cycle in which fertilization did not occur. Typically, within two to four months after the cycle, the female starts showing signs of the disease.

What causes pyometra?

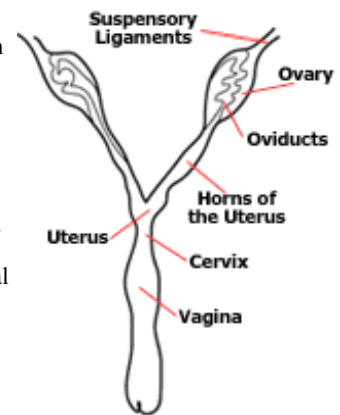
The two main hormones produced by the ovaries are estrogen and progesterone. An excessive quantity of progesterone, or the uterus becoming oversensitive to it, causes pyometra. In either case, cysts form in the lining of the uterus. At this point, the condition is called 'endometrial hyperplasia,' and generally, the cat will not show signs of disease.

As these cysts containing numerous secretory cells grow, large quantities of fluids are produced and released into the interior of the uterus. Bacteria commonly colonize the uterus by entering through the cervix. This produces an even greater response by the body, as it showers additional fluid and white blood cells into the affected organ. The condition is then called 'pyometra.' If the lining of the uterus becomes infected, the condition is termed 'endometritis.'

This fluid, along with a thickening of the walls of the uterus, brings about a dramatic increase in the overall size of this organ. The uterus is made up of a body with two horns. In the unaffected cat, the horns are smaller than a common pencil. However, in cases of pyometra, they become large, sac-like pouches the circumference of cucumbers and 12 inches long. As the disease continues, fluid moves from the uterus to the vagina and then spills out onto the vulva causing the animal to lick this area in an attempt to keep itself clean.

After a while, the cervix closes. This effectively traps all of the fluid within the uterus. Still, the body continues to transfer more fluid and white blood cells into the organ, causing even further dilatation and growth. The uterus can rupture, spilling its contents into the abdominal cavity. If this occurs, the cat usually dies in less than 48 hours. In most cases, this does not happen.

The body will attempt to eliminate the problem by carrying the wastes and excess fluid through the bloodstream to the kidneys. However, the amount of material in a cat with pyometra is too great to be eliminated in this fashion, overloading the kidney system. The normal toxins that should be excreted from the body build up, and the animal goes into uremic poisoning. Untreated, she will die from kidney failure.



Symptoms

The most common sign is a white/yellow or blood-tinged discharge from the vulva. The cat will lick at her vaginal area while the cervix is still open and the uterus is discharging a white fluid. The abdomen may appear distended and the cat may vomit, not eat, and become lethargic. Most dogs drink excessive quantities of water (polydipsia) and urinate large amounts frequently (polyuria); this is less common in cats. Some cats will have a fever and some may become dehydrated. If blood work is done, she will show an elevated white blood cell count, and some will have a mild anemia.

Treatment

Since toxicity may develop very quickly in cats with pyometra, it needs to be treated promptly. Cats will receive intravenous fluids, usually for several days, and antibiotics. In most cases, the preferred treatment is a complete ovariohysterectomy (spay). This removes the ovaries, oviducts, uterus, and all associated blood vessels. These animals can be a surgical challenge because of their poor overall condition. In some females valued for breeding, prostaglandin and antibiotic therapy may be tried instead of surgery. The prostaglandin is given for 3-5 days and causes the uterus to contract and expel the fluid. In mild cases, when the cervix is still open and the fluid is draining, the success rate is excellent. Prostaglandins, however, can have side effects including panting, vomiting, urination, and defecation. In some queens, whose condition is unstable, the side effects are too severe and the treatment needs to be discontinued.

Prevention

The best prevention of pyometra is to have all female cats spayed at or before six months of age. If the cat is used for breeding, then spaying the queen after she is past her breeding years is highly recommended. Pyometra is a fairly common and serious problem and is just one of many compelling reasons to have your female pet spayed at an early age.