

3**Ovarian Tumor and Pyometritis in a Bitch.**

It has long been known that ovarian tumors in the human are an important cause of sterility and related problems of the reproductive tract. Very little work has been done on this condition in domestic animals. In recent years some veterinarians and some animal husbandmen have considered ovarian tumors, especially the cystic type, as being a cause sterility and slow breeding in cows. It is also known that cystic ovaries may be a cause of nymphomania in the mare and on their removal, recovery is effected.

There have been very few reports on ovarian tumors in carnivora. A. Coquot and G. Nemkoff reported their findings in eighteen bitches and four cats. The tumors encountered most frequently were cystic adenomas in young patients, and carcinomas in the older patients. Oophorectomy is the recognized treatment for ovarian tumors, with complete oophorohysterectomy when pyometra or other uterine involvement is encountered.

Chronic Metritis

A collie bitch with a history of chronic metritis was brought into the Stange Memorial Clinic on Jan. 28, 1943. She had been treated several times with ergotrate in an attempt to evacuate the uterus. Little relief had been evidenced by this treatment so an oophorohysterectomy was performed. The left ovary was greatly enlarged and on sectioning was found to be entirely replaced by solid tumorous tissue of the adenocarcinoma type. It was about two inches in diameter as shown in the accompanying photograph. The right ovary was made up of a very small fragment of ovarian tissue, being almost completely replaced by adipose and connective tissue. The dog died during the night of February 3, and necropsy was performed the following morning.

Autopsy revealed no peritonitis, but there was a distinct urine odor about the carcass. Hypothyroidism was evident, the thyroid glands being about one-half the normal size. Splenic and hepatic infarcts were found, as well as multiple infarcts of the kidneys and heart muscle. There was marked fatty degeneration of the

liver and myocardium. The kidneys were much enlarged and showed evidence of both chronic and acute nephritis. The bladder wall was considerably thickened and hemorrhagic; the lumen contained some sanguinous pus.

The apparent sequence of events was pyometritis, pyemia, multiple renal and myocardial infarction, uremia and death. This case clearly indicates that early hysterectomy is certainly to be considered in

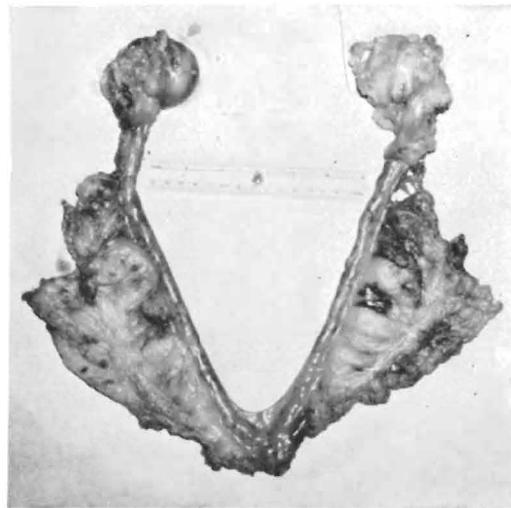


Photo showing pyometritis and enlarged left ovary in a bitch.

the treatment of pyometritis. It also brings up the question of whether or not ovarian tumors can be a contributing factor in some cases of pyometra.

REFERENCE

Coquot, A., and Nemkoff, G. Studies on ovarian tumors of domestic carnivores. *Recueil de Medicine Veterinaire*. 106:129-135. 1930.

—H. H. Rohwer, fall '43

4**Infection as a Possible Cause of Sterility.**

On February 3, 1943, a two-year-old Hereford bull was presented at the Stange Memorial Clinic with a history of only occasionally breeding cows. His breeding activities for the last few months had been quite sporadic; in some instances he would breed quite normally while at other times he would pay no

attention to the cows. The owner believed that the bull had settled three cows as they had not come in heat since they were bred.

General Condition Good

The general condition of the animal when presented was quite good. The pulse, temperature, and respiration were normal. The bull appeared healthy in every respect; he was well fleshed and his appetite was good.

An attempt was made to examine the penis for any malformations or enlargements, and also to determine if any difficulty was encountered in protruding the penis from the prepuce. A cow (not in heat) was led into the stall, but the bull refused to pay any attention to her. The bull was then cast and manual manipulation was used in an effort to protrude the penis, but the retractor peni muscles were too strong to allow this.

Two days later the bull was placed on the operating table and chloral hydrate (22 percent solution) was slowly injected into the jugular vein to relax the penis and permit its protrusion. The retractor muscles relaxed after two ounces of the chloral hydrate solution had been given. Only slight anesthesia was produced with this dose. On examination it was discovered that the penis could not be protruded more than eighteen inches out of the prepuce which is a rather short protrusion for a bull of this size. The examination was interrupted by the jerky respiration and sudden profound anesthesia of the bull. All restraint was released immediately but death occurred in a few moments.

Post Mortem

The principal lesions found on post mortem examination were of multiple chronic, hemorrhagic, purulent, cervical lymphadenitis, involving most of the cervical lymphatic chain. The original lesion was a granulating ulcer, about three cm. in diameter, located in the right cheek. A bacteriological examination revealed the presence of *Corynebacterium pyogenes*. Right cardiac atony was observed as well as an acute hemorrhagic volvulus of

about twenty feet of the jejunum. Evidence of a toxemia was also present.

General anesthesia in the bull is always dangerous. The dosage administered in this case was just enough to produce a relaxation of the penis in a healthy bull of this size. The chance of death resulting from the anesthesia was slight if it had not been for the dilated right heart and the general toxemia. No external evidence of the atonic heart condition was shown.

The bull's lack of interest in copulation was probably due to a toxemia from the multiple abscesses and as a result this directly influenced his libido.

In the last two years, several similar cases in the clinic have been found to have a *Corynebacterium pyogenes* infection. Many times this condition is incorrectly diagnosed as actinomycosis as it frequently locates around the jaw and cervical region. It produces multiple abscesses similar to those of actinomycosis and the termination is nearly always fatal.

—Vaylord Ladwig, fall '43

5 Gangrenous Mastitis Discussion.

Gangrenous mastitis is not an uncommon sequela of severe mastitis and if improperly handled often results in the death of the animal. The prognosis on the life of the animal is usually favorable if treatment is administered as soon as possible after diagnosis even though the affected portion of the udder may be lost.

Gangrene results from the action of putrefactive bacteria in moist necrotic tissue. The inflammation in severe mastitis causes an arteritis of the principal arteries supplying the involved quarters followed by thrombosis resulting in infarction and necrosis. Putrefactive bacteria gain entrance to the moist necrotic tissue producing gangrenous mastitis.

Symptoms of gangrenous mastitis are blue-black coloration of the skin and coldness of the affected parts. A brown fluid with a putrid odor can be milked from the diseased quarters. Areas often necrose through the wall of the udder forming a fistulous tract. In advanced cases where

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