

Prostatic and Paraprostatic Cysts in Dogs

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BASIC INFORMATION

Description

Prostatic cysts are fluid-filled pockets in the prostate. They range in size from small to large, and they may be single or numerous. Paraprostatic cysts are large cysts that lie next to the prostate gland and are usually connected to the prostate by a stalk. Paraprostatic cysts do not open into the urethra (as normal prostatic ducts do). All prostatic cysts are more likely to occur in intact (unneutered) male dogs. The cat has only a rudimentary prostate gland, so these cysts are very rare in the male cat.

Causes

Prostatic cysts are thought to arise from blockage of ducts in the prostate, with subsequent expansion of the cyst due to accumulation of prostatic secretions. Paraprostatic cysts were previously thought to be a remnant of a fetal structure, but they are now thought to arise in the same fashion as prostatic cysts.

Clinical Signs

Dogs with prostatic cysts may have no signs until the cysts are large enough to impinge on surrounding structures. At that point, straining to defecate or urinate and difficult urination may develop. The urine may be bloody or cloudy. If the cyst becomes quite large, the abdomen may be distended. Occasionally paraprostatic cysts become infected, and the dog may develop lethargy, decreased appetite, abdominal pain, and fever. When rectal palpation is performed by your veterinarian, the cysts or an enlarged prostate can sometimes be felt.

Diagnostic Tests

Initially, blood and urine tests (urinalysis, culture) and abdominal x-rays are often recommended to investigate the clinical signs. Urinalysis and urine culture may indicate a urinary tract infection. X-rays may show an enlarged, irregular prostate, or they may show two structures that look like two bladders in the abdomen (in the case of a paraprostatic cyst). Both prostatic and paraprostatic cysts are readily apparent on an abdominal ultrasound.

A contrast study may be recommended. This procedure involves taking a series of x-rays after infusion of contrast material (a dye that shows up white on x-rays) into the urethra via a urinary catheter. With a paraprostatic cyst, the contrast study may show a mass near the prostate that does not fill with the dye. The contrast medium usually enters the prostatic tissue surrounding the urethra when prostatic cysts are present.

It can be difficult to differentiate a prostatic cyst from a prostatic abscess unless a sample of the fluid is obtained by needle aspiration (for microscopic and bacteriologic analysis), either under sedation with ultrasound guidance or at surgery. In some cases, the diagnosis can be confirmed only by abdominal exploratory surgery and submission of biopsy samples.

TREATMENT AND FOLLOW-UP

Treatment Options

Small prostatic cysts may be managed with castration and antibiotic therapy (if the cysts are infected). After termination of testosterone production (by removal of the testicles), the prostate typically shrinks to a normal size within 3-6 weeks, and the cysts subside.

Larger cysts, particularly paraprostatic cysts, may require surgical removal or drainage in addition to castration. Drainage may involve the placement of indwelling tubes that allow the cyst fluid to exit the body, or it may involve temporary drainage of the cyst during surgery and placement of omentum (tissue that covers the abdominal organs) into the cyst cavity. Infected paraprostatic cysts are treated similarly to prostatic abscesses. (See the handout on **Prostatitis and Prostatic Abscessation in Dogs**.)

Follow-up Care

For uncomplicated prostatic cysts, the prostate is usually palpated at the time of suture removal, and again 3-4 weeks after castration, to ensure that the prostate is shrinking as expected. If the gland is not shrinking, then other diseases (such as prostatic cancer or persistent infection) may be involved, and further testing for those diseases is often recommended. If the cysts were originally infected, urine culture is usually recommended 7 days after finishing the antibiotics, to ensure that the infection has resolved. Periodic follow-up visits to check indwelling drains and to repeat laboratory tests and abdominal imaging are usually required following surgery for large paraprostatic cysts.

Prognosis

If present, clinical signs are not likely to resolve without surgery for these cysts. Prognosis for simple prostatic cysts is good following castration and antibiotic therapy (if needed). With surgical removal or drainage, the prognosis is good for noninfected paraprostatic cysts, although recurrence of the cyst is possible in rare cases.