

### **Protocol for enlarged prostate with clinical signs of illness**

-Often, prostatic enlargement causes stranguria, hematuria, preputial or urethral discharge, or tenesmus. However, those signs may not always be obvious, and the dog may only present with vague signs of illness such as lethargy, anorexia, etc. and the prostate may not be significantly enlarged on palpation, particularly with chronic prostatitis, which can present with very subtle signs.

#### Recommended diagnostics

-CBC, chemistry

-Urinalysis with culture

-Prostatic fluid evaluation\* and/or prostatic FNA-submit for cytology and culture

-Abdominal radiographs to look size of prostate, presence of vertebral body lysis or sublumbar lymph node enlargement (the latter two findings are suggestive of metastatic prostatic neoplasia)

-Thoracic radiographs to evaluate for metastasis

-If ultrasound is available, evaluate prostate for cysts, abscesses, and changes in echodensity. Mineralization may be seen with infection or neoplasia. Ultrasound-guided FNA may be performed if an abscess is ruled out (risk of seeding infection).

\*A prostatic fluid sample may be obtained via collection of the 3<sup>rd</sup> portion of the ejaculate OR from a prostatic massage technique. For the first method, the 3<sup>rd</sup>, clear portion of the ejaculate is collected. The prostatic portion follows the sperm portion (white/cloudy) and is clear in nature, possibly up to 20 ml (variable). The prostatic portion may be collected over 5-15 minutes. For the prostatic massage, the patient is sedated and a urinary catheter is placed sterilely. Attach a sterile syringe to the end of the catheter. Remove urine and instilled and remove sterile saline several times, collecting a small amount in the patient on the last instillation for a reference "pre-massage sample." Then, transrectally, massage the prostate vigorously before infusing 10 ml of sterile saline and occlude urethral orifice distally. Continuously aspirate as catheter is advanced into prostatic urethra and into the bladder. This yields a "post-massage sample." Submit both for culture and cytology.

#### Treatment

-Antibiotic trial for acute or possible chronic prostatitis with fluorquinolone (Baytril 5 mg/kg PO BID) or TMS, chloramphenicol, or erythromycin, ideally based on culture, for 4-6 weeks minimum. Monitor for bone marrow suppression, KCS, and liver toxicity with TMS antibiotics. Castration is recommended after at least 7 days of therapy for prostatitis, or after antibiotic course is complete. Confirm negative urine culture 1 week after discontinuing antibiotics.

-Castration is treatment of choice for benign prostatic hypertrophy in the non-breeding dog. For breeding dogs with BPH, finasteride (0.1-0.5 mg/kg PO daily) may be given but is required lifelong to shrink the prostate, which may not be as thorough as with castration.

-For prostatic cyst, ultrasound guided drainage is recommended and may require multiple drainage procedures to achieve remission. Also, treat as above for acute or chronic prostatitis.

-For prostatic abscesses, which are due to chronic prostatitis, surgical treatment is recommended and the risk of incontinence should be discussed. Antibiotic therapy may be necessary for at least 8 weeks, and cultures may be falsely negative.

-If prostatic disease is still present or suspected based on clinical signs or radiographic changes (prostatomegaly, etc) OR if strong reason to suspect neoplasia (sublumbar node enlargement, non-responsive to antibiotics) OR definitive diagnosis of neoplasia, trial treatment with piroxicam for transitional cell carcinoma or adenocarcinoma could be attempted (0.3 mg/kg PO daily). Recheck renal values one week after piroxicam initiation.

