



PATIENT PRESENTING CLINICAL SIGNS

Eli Karp History: Ruling out prostate cancer. Current meds: Tacrolimus 0.02% solution 15mL

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine

Urinary System

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted. Urethra visualized to 3.0 cm.

BREED

Cavalier King Charles Spaniel

The prostate is of subjectively increased size for a small, neutered dog, with an inhomogenous parenchyma and smooth capsular surface. There is thickening of the post-prostatic urethra, measuring 4.4 mm in diameter. There is no mineralization, cystic change, nor evidence of urethral obstruction.

SEX

Neutered Male

The kidneys are of normal size and shape and exhibit appropriate corticomedullary differentiation with a normal 1:3 cortex to medulla ratio. There is no evidence of nephrolithiasis, mineralization, pyelectasia, cystic change or hydronephrosis. The proximal ureter is not visible (normal). The left kidney is 4.8 cm in length. The right kidney is 5.0 cm in length.

AGE

9 Years

Adrenal Glands

The right adrenal gland is focally enlarged and hyperechoic. They have normal phrenic vasculature and are found in the normal location. The left adrenal gland height is 4.0 mm at the cranial pole and 4.5 mm at the caudal pole. The right adrenal gland height is 1.1 cm at the cranial pole and 3.8 mm at the caudal pole.

WEIGHT

15.2 Pounds

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

IMAGING

PERFORMED BY

Jessica Miller, RDMS

Liver

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

HOSPITAL NAME

Brenda King, VMD

The gallbladder is moderately distended with anechoic contents. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

REFERRING VET

Dr. King

The stomach is moderately distended with gas. The gastric wall is 3.3 mm with normal deviations due to rugal folds and exhibits appropriate wall layering. The pylorus is of normal appearance.

INVOICE

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The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenum is diffusely corrugated. The duodenal wall measures 4.1 mm. The jejunal wall measures up to 3.3 mm. Intestinal motility appears normal.

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The visible portions of the colon are of normal thickness, up to 1.3 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.



PATIENT

Pancreas

Eli Karp

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

SPECIES

Canine

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The mesenteric lymph nodes were (mildly enlarged, up to 2.6 cm, with normal short to long axis ratio and appropriate echogenicity. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

BREED

Cavalier King Charles
Spaniel

ULTRASONOGRAPHIC FINDINGS

SEX

Primary Findings

Neutered Male

- Subjectively enlarged inhomogenous prostate, with thickening of the post-prostatic urethra

AGE

9 Years

Secondary Findings

- Corrugated duodenum
- Reactive mesenteric lymph nodes
- Mildly enlarged right adrenal gland

WEIGHT

15.2 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

While the appearance of the prostate cannot definitively confirm prostatic neoplasia, this would be one potential explanation for the appearance of the prostate. Less likely considerations include bacterial prostatitis, as well as a potentially normal appearance if this dog was neutered later in life. Additional recommendations include:

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Dr. King

- ❖ Urethral catheterization with prostatic massage may provide cells for cytology, and is low risk
- ❖ A urine BRAF test is recommended, as many canine prostatic neoplasms re urothelial in origin, and will be detected on the BRAF assay.
- ❖ Ultrasound guided fine needle aspiration can be attempted, but poses the risk of seeding cells along the needle tract. If there is associated lymphadenopathy, then lymph node aspiration could be considered.
- ❖ Definitive diagnosis often requires surgical biopsy.
- ❖ Three view chest radiographs are recommended to screen for metastasis.
- ❖ NSAID therapy may provide some anti-neoplastic benefit and symptom relief.
- ❖ If the patient is having difficulty urinating, a urethral stent could be considered.
- ❖ If the patient is having difficulty defecating, then stool softeners, such as lactulose or miralax, may be of benefit.

The appearance of the duodenum and reactive mesenteric lymph node may be consistent with gastroenteritis and should be correlated with any clinical signs present. If the dog is exhibiting no gastrointestinal symptoms, then this is likely an incidental finding.

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The appearance of the right adrenal gland may be indicative of adrenal hyperplasia, a benign adrenal adenoma, or an early malignancy such as pheochromocytoma or adenocarcinoma. Recommendations include:

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- ❖ blood pressure measurement to screen for pheochromocytoma



PATIENT

Eli Karp

- ❖ if signs of Cushing's disease are present, then adrenal function testing (either a low-dose dex-suppression test or ACTH stimulation test) is recommended
- ❖ monitoring the nodule for changes in size or appearance, via serial ultrasounds at 6-8 week intervals

SPECIES

Canine

BREED

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Spaniel

SEX

Neutered Male

AGE

9 Years

WEIGHT

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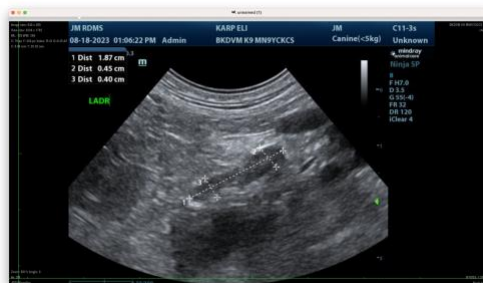
Dr. King

INVOICE

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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