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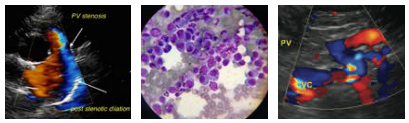

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DATE
9/29/21

PATIENT
Spike Short

SPECIES
Canine

BREED
Chihuahua

SEX
Intact male

AGE
2008

WEIGHT
9.1 lbs

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Silva

INVOICE
92044

PRESENTING CLINICAL SIGNS

Vomiting, Diarrhea, & Lethargic.
History: Date: 09-25-2021 Notes: Went to vet on Thursday night because Tuesday was the last time he ate. Later on Tuesday he had
vomited what looked like yellow bile. He then got up at 2 am and peed on bed and had diarrhea 3x. He was also getting wobbly on his feet.
Bloodwork was sent out and revealed elevated kidney and liver values and was sent here for continued care. Owner was giving Pedialyte
and baby food throughout the day today.
Current Medications: Amoxicillin (Biomox) Tablets 50mg, Metronidazole Tablets 250mg, Maropitant Citrate (Cerenia) Tablets 16mg, Denamarin Advanced 61 mg (Cats & Small Dogs), Gabapentin Tablets 25mg, Ampicillin 125mg/vial Injection (Per mL).
Lab Results: Attached separately within request. Elevated kidney and liver values.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is large in size (2.68 cm) but has a regular shape with smooth external margins. The parenchyma is heterogenous but no discrete focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.42 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Occasional cortical cysts were noted in the left kidney. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.77 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Occasional cortical cysts were noted. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.5 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.48 cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal and the jejunum measured as normal (0.28 cm). Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other
The left and right testicles were imaged. The right testicle is large and measured 1.38 x 1.8 cm and hypoechoic with no typical architecture visualized. This is most consistent with either a large testicular cyst or mass. The left testicle is smaller measuring 1.4 x 0.96 cm. It is isoechoic with no significant anatomic detail. The testicle is abnormal, but no focal lesion is observed.

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

- Heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Moderate gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Large, heterogenous prostate.

- Prostate enlargement.

- Abnormal testicles. The right testicle is either a large cyst or mass effect. The left testicle appears small with reduced architecture. I recommend neutering with histopathology of testicles.

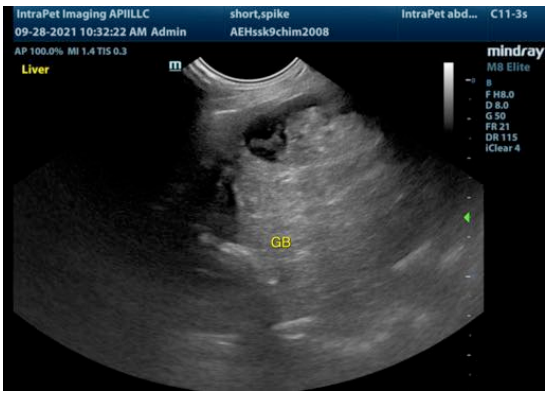
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

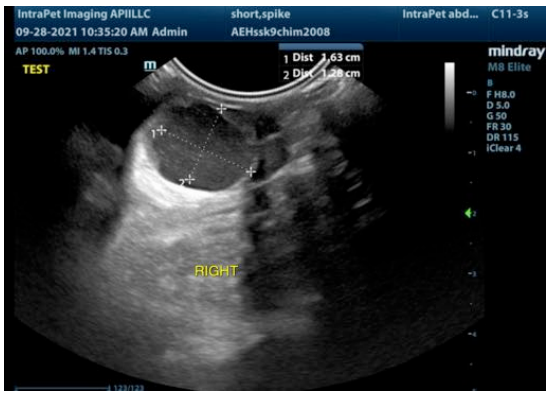
There is not a dramatic focal lesion to explain the liver enzyme elevations reported. There is a large amount of gallbladder sludge, but I do not see obvious inflammation surrounding the gallbladder to indicate an immediate surgical condition.

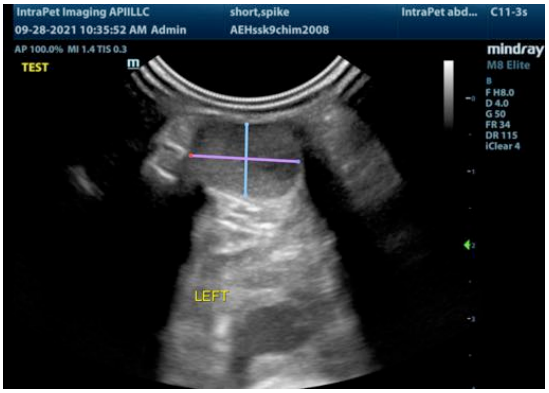
Additionally the kidneys of age related change and the prostate is large is most consistent with BPH, but urinalysis and culture should be performed to look for possible prostatitis, pyelonephritis, etc.

The testicles are abnormal. I doubt that this is associated with the current symptoms reported, but likely intervention in the future will be necessary. To reiterate:

- Recommend liver function test and FNA of the liver as long as coagulation parameters normal
- Recommend testing for Leptospirosis
- Recommend monitoring of gallbladder and consider starting Ursodiol as this could become surgical in the future
- Recommend urinalysis and culture to check for pyelonephritis and prostatitis
- Recommend neutering and submitting testicles for histopathology once the patient is feeling better
- Recommend therapy for acute liver injury, if not responding to therapy then consider a liver biopsy and further evaluation of the gallbladder



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TEST
LEFT
mindray
M8 Elite


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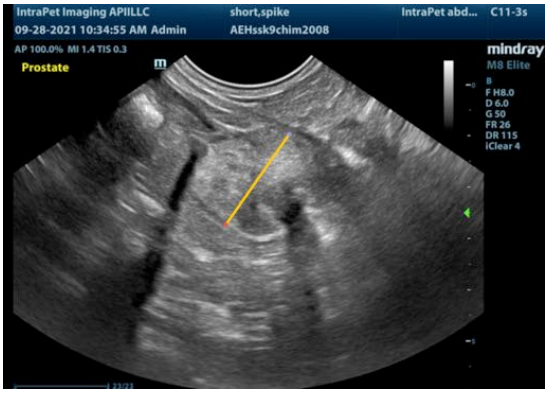
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IntraPet Imaging APIILLC
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3 Dist 0.50 cm
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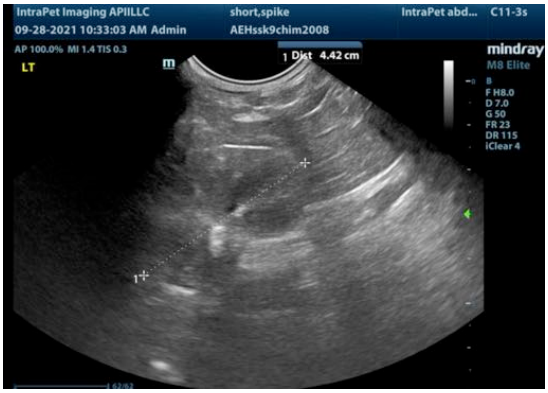
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1 Dist 4.42 cm
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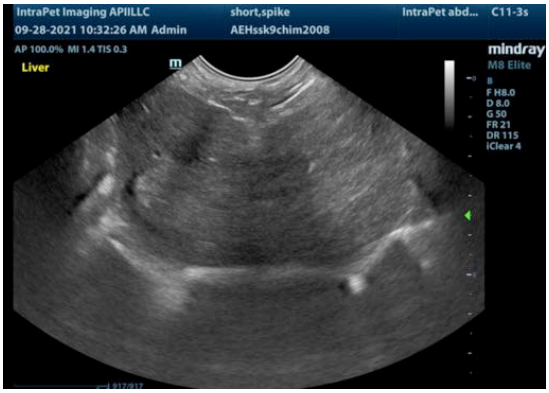

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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