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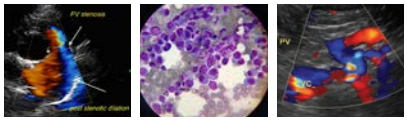

SonoPath
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DATE

12/3/21

PATIENT

Winston Reade

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Neutered Male

AGE

4/24/07

WEIGHT

20.1 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Brand

INVOICE

33253

PRESENTING CLINICAL SIGNS

History: 12/1/21 periodic vomiting - 2 x per week, lethargy. History of Ca++Oxalate stones, pancreatitis, gall bladder dz, anxiety.

Current Medications: long term meds: Potassium Citrate BID, Ursodiol 300mg SID, Reconcile 16mg SID, Gabapentin 300mg BID, Hydrochlorathiazide BID, Odansetron 4mg BID, Pepcid 5mg BID, Gemfibrozil 600mg BID. 12/1/21 added Cerenia 16mg PO SID.
Lab Results: Hct 27.4, BUN 57, Creat 1.8, USPG 1.022, urine protein 500mg/dL, cPL 224.8 (<200 : normal, 200-400: suspected, >400: consistent with pancreatitis). Attached separately.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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, or masses. There are numerous pinpoint shadowing hyperechoic calculi/sandy debris in the dependent portion of the urinary bladder.

The prostate is normal in size (1.2 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (5.91 cm) with mild pyelectasia, non-obstructive nephroliths, and a small cortical cyst. 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. There is no evidence of, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.62 cm) with pyelectasia and small non-obstructive nephroliths. 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. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.55 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 0.72 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 homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris, but there is early organization suggestive of early mucocele. There is no evidence of bile duct dilation.

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. Jejunum wall measured 0.3 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 area of 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.

ULTRASONOGRAPHIC FINDINGS

- Large gallbladder with mucocele development – This gallbladder is significantly abnormal, but does not have obvious surrounding inflammation.

- Decreased corticomedullary distinction in both kidneys with mild pyelectasia and non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Small stones/sandy debris in the dependent portion of the urinary bladder – recommend urinalysis and culture.

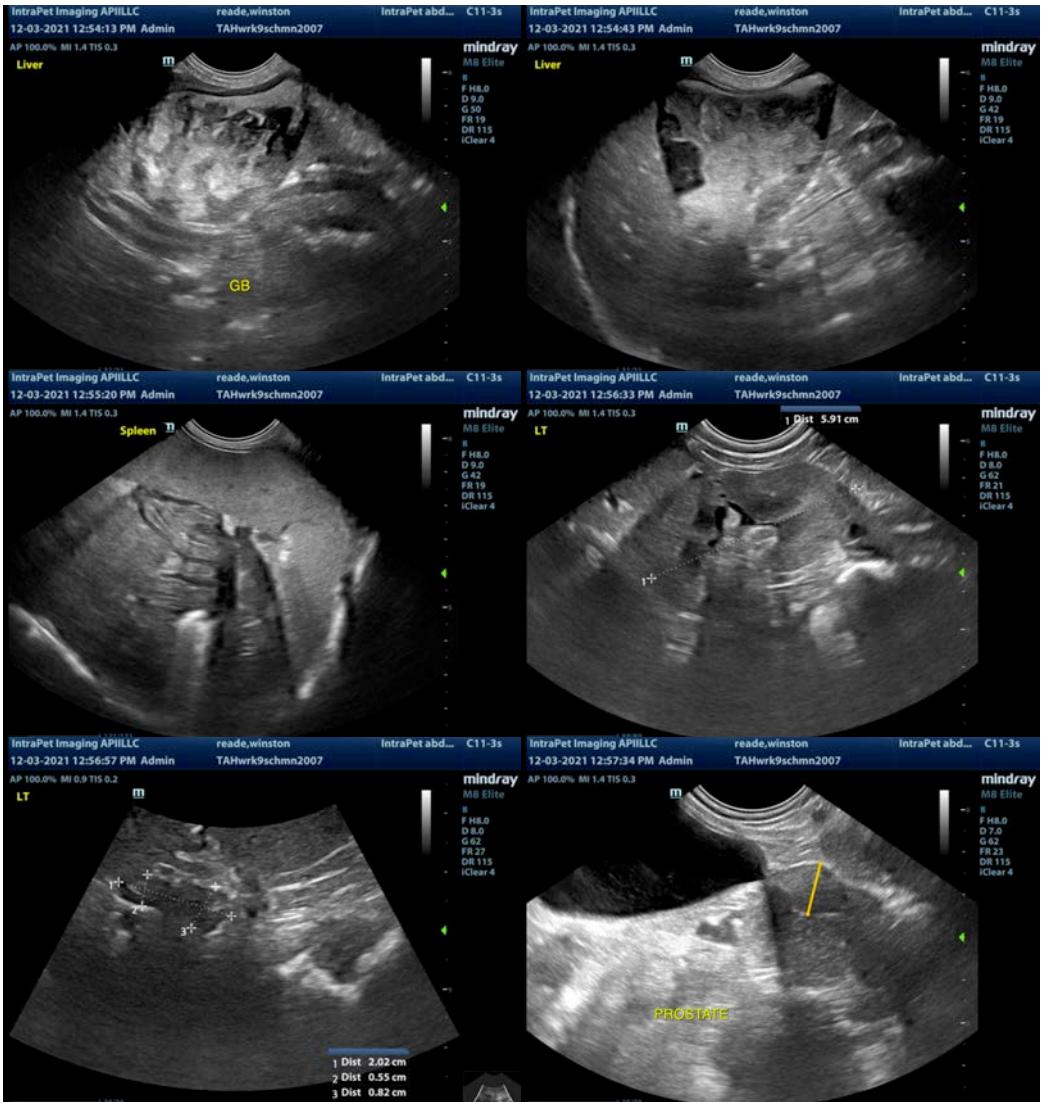
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

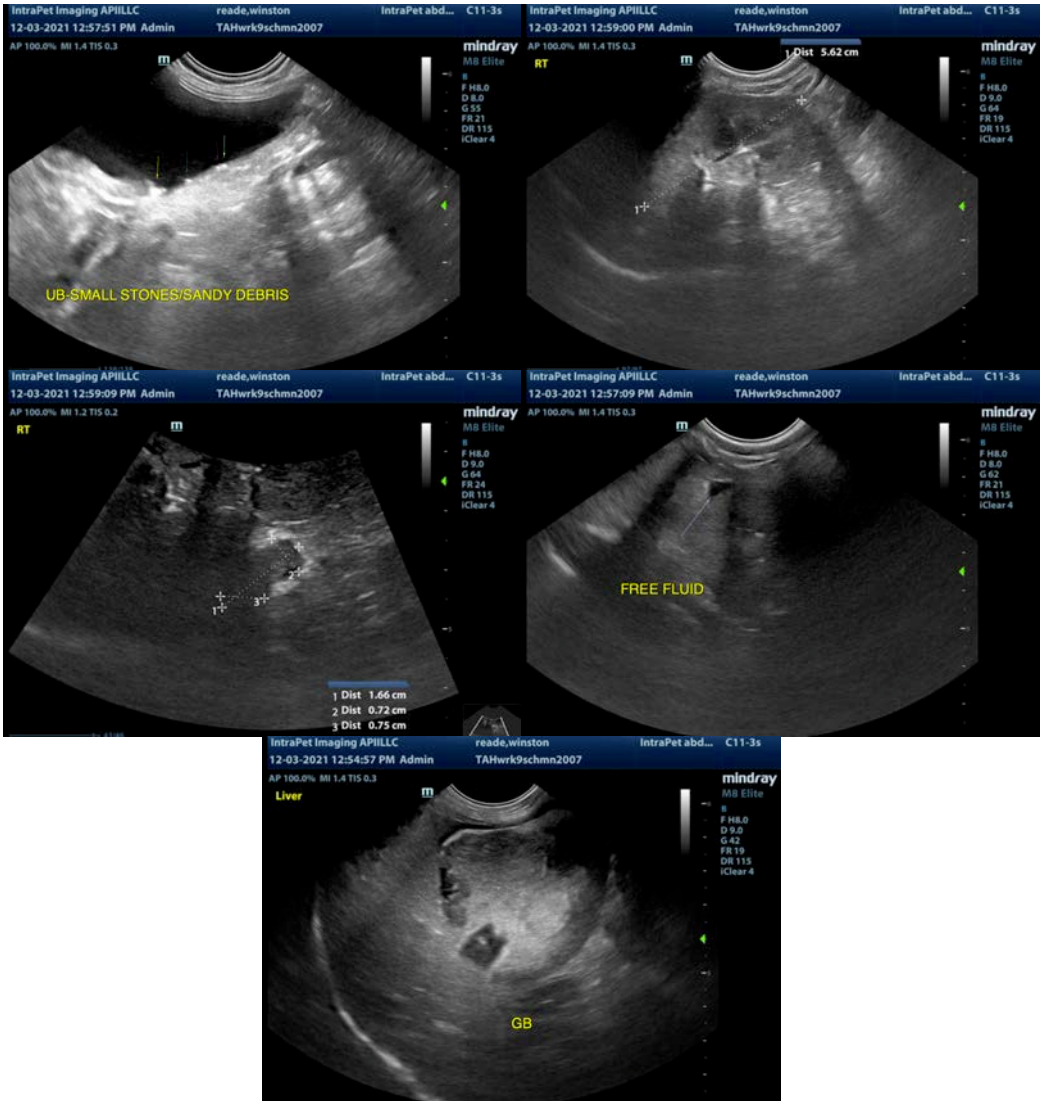
The gallbladder is a prominent feature of the ultrasound today. It is very distended and is consistent with a mucocele. There is no overt inflammation surrounding it, liver enzymes are normal, and no white blood cell count elevation as would be typical in significant gallbladder disease. Therefore, the issue of surgical removal would be a judgement call. I cannot say it is definitively a cause for the symptoms descried (but could be).

The changes visualized associated with the kidneys correlate with the elevated liver values reported and the history of calcium oxalate stones. Recommend urinalysis, culture and blood pressure evaluation.

An obvious cause for the anemia is not visualized. No other cell lines are down, so this could be an anemia of chronic disease. Check for melena on rectal exam. If chest radiographs, abdominal ultrasound and rectal are normal, you could consider a bone marrow evaluation due to the non-regenerative aspect of the anemia.

If no other cause for the symptoms described is identified, you could consider surgical removal of the gallbladder, as it is significantly abnormal, but I am not 100% certain it is the only issue at hand.





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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