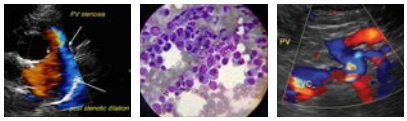
IMAGING PERFORMED BY

IntraPet.com



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DATE

1/4/22

PATIENT

Knight Thompson

SPECIES

Canine

BREED

Yorkie Poo

SEX

Neutered Male

AGE

10/4/13

WEIGHT

8.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Silva

INVOICE

33944

PRESENTING CLINICAL SIGNS

History: Presenting Complaint: Observation / Monitoring Date: 01-04-2022 Notes: Has a history of pancreatitis. Is on a low fat diet and doesn't get fed any other things. It started this morning that he didn't want to eat and vomited several times. Went to Urgent Care and did bloodwork, suspicious of pancreatitis and sent here. Assessment: continued care for suspect pancreatitis. Plan: Recommended IV fluids, supportive care, ultrasound and recheck liver values in 24 hours. IV fluids 1.5x maintenance, PCV/TS q12, ALT/ALP/Tbili q24, NPO for ultrasound.

Current Medications: Ampicillin 15mg/kg IV TID, Buprenorphine 0.02mg/kg IV TID, Maropitant 1mg/kg IV SID, Pantoprazole 1mg/kg IV SID.
Lab Results: ALT 221 ALP 282 Tbili 1.3 Amyl >2500 lip 5482 Na/K ratio normal no electrolyte abn WBC 17k PLT 636. 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. In some views, there is a small pile of shadowing, hyperechoic debris, measuring 0.32 cm in width This likely represents a small pile of mineralized debris or a small stone.

The prostate is normal in size (0.78 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 (4.09 cm) with numerous moderate sized, non-obstructive nephroliths measuring 0.37, 0.42, and 0.59 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.15 cm) with small non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. 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 079 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 0.55 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 mildly 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 gall bladder lumen is moderately distended. The wall of the gall bladder 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 (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

Free Abdomen
Scant anechoic free fluid noted. No lymphadenopathy. The omentum is of increased echogenicity around the hypoechoic pancreas.

ULTRASONOGRAPHIC FINDINGS

- Hypoechoic, prominent pancreas with surrounding hyperechoic mesentery – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Mildly heterogeneous 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.

- Non-obstructive nephroliths visualized in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Dependent mineralized debris in the urinary bladder – most consistent with either a small stone or small pile of debris. Recommend confirming with radiographs and urinalysis and culture.

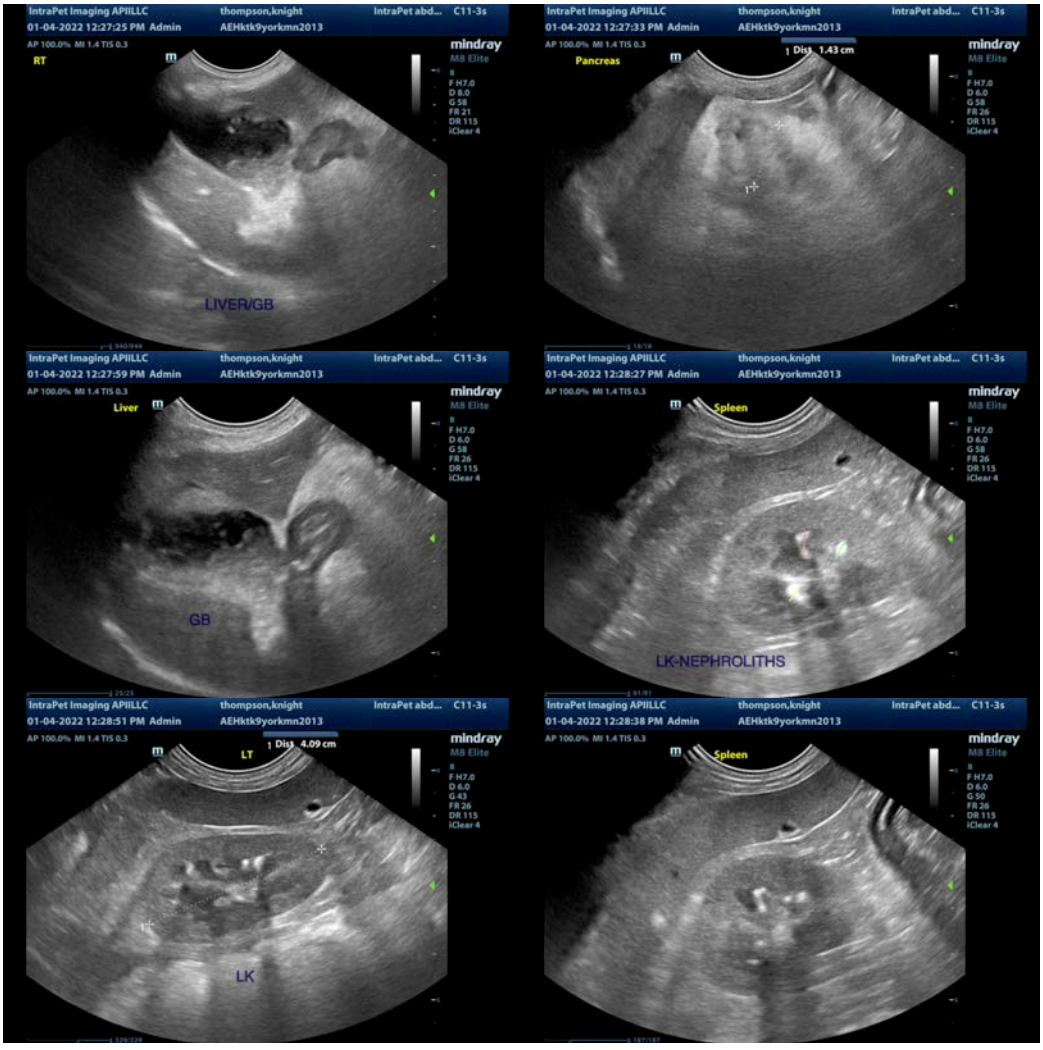
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

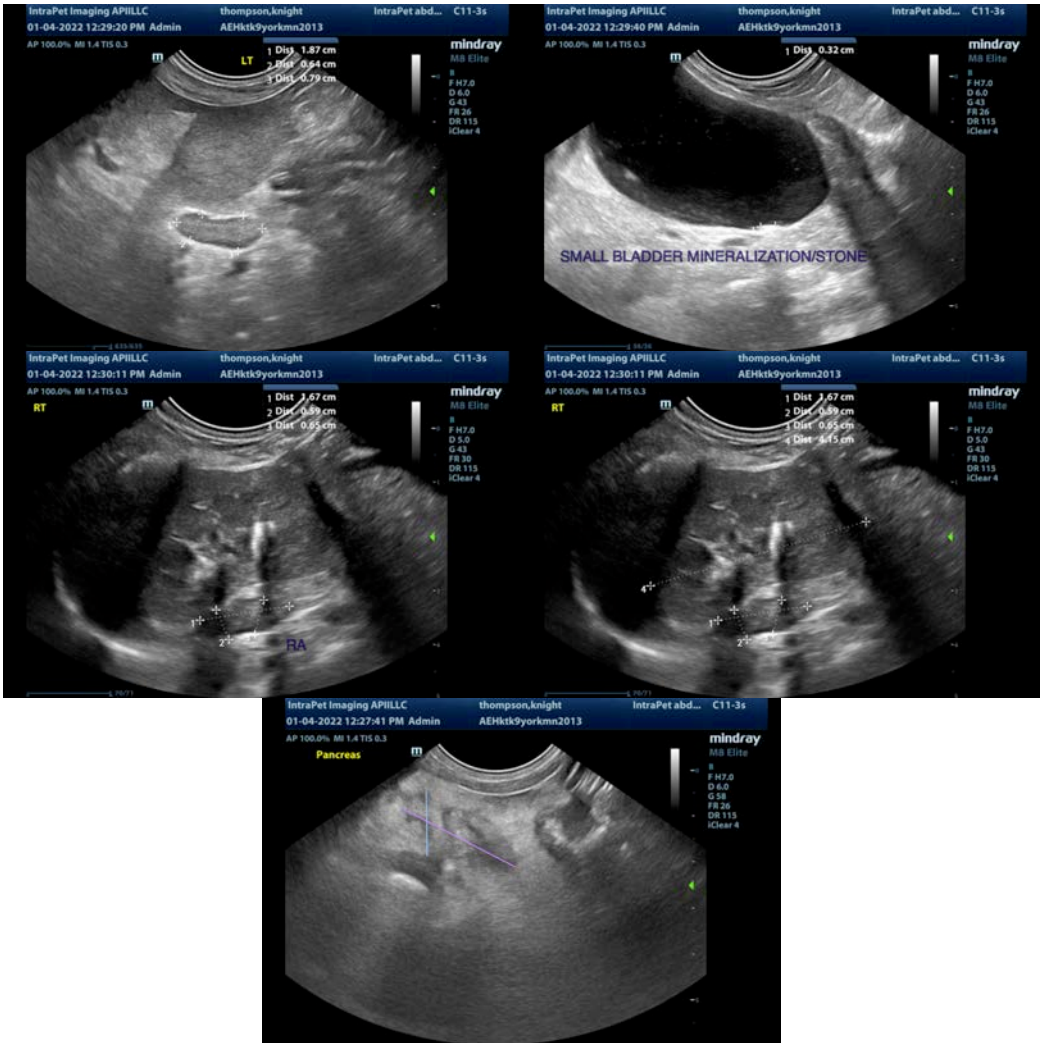
The ultrasound findings are supportive of the pancreatitis suspected. This can be frustrating in patients with recurrent episodes. Recommend an evaluation of fasting cholesterol and triglycerides if not already done (for hyperlipidemia), and screening for any medications that could predispose to pancreatitis (steroids, Phenobarbital, etc.), and additionally screening for hypothyroidism when he is feeling better.

Recommend IV fluids, pain medications, anti-nausea medications, and continued strict low-fat diet.

There are non-obstructive nephroliths seen in both kidneys, which are likely an incidental finding at this time. There is a small amount of mineralization in the dependent portion of the urinary bladder, which could be consistent with a small stone. Correlate with abdominal radiographs, as this may be too small to pick up, or could be a pile of sandy debris. Recommend urinalysis and culture and continued monitoring. Cystotomy could be considered if the patient was clinical for the stone and it can be confirmed on radiographs. I suspect this is an incidental finding.

If the bilirubin elevation is real (not due to hemolysis or lipemia), then you could consider Ursodiol therapy, as there is a moderate amount of gallbladder sludge present.





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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