



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Winston Bicknell
History of being a well controlled diabetic on Glargine. Has been on Metacam which we have since stopped. Owner was away and on return he was ADR. Now appears jaundiced. Was started on Mirtazipine.

SPECIES Abnormal PE/Chem/CBC/UA Results: ALT elevated, ALP elevated, T bilirubin elevated, MCHC elevated, Mono elevated, Glucose elevated, Chloride decreased.

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

DMH

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.

SEX

Neutered Male

The left kidney has a normal shape and size. (4.84 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.

AGE

16 Years

The right kidney has a normal shape and size (4.88 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.

WEIGHT

5.76 kg

Adrenal Glands

The left adrenal gland is normal in size measuring 0.43 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 0.40 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.

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

Spleen

The spleen is subjectively normal in size (0.88 cm in width at the level of the hilus), 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.

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Liver

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

REFERRING VET

Dr. Dennis

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There is a relatively normal appearing gallbladder lumen that is moderately distended with some hyperechoic debris and projection that is irregular and appears somewhat polypoid. Additionally, a second luminal structure is visualized, most consistent with a bilobed gallbladder that has a small amount of debris. These join to form a mildly dilated cystic duct, and the common bile duct is lost as it narrows.

DATE

7/26/22


PATIENT
Gastrointestinal

Winston Bicknell

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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.

SPECIES

Feline

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 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

BREED

DMH

SEX

Neutered Male

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
AGE

16 Years

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
WEIGHT

5.76 kg

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.

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 Kathleen Sennello DVM,
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 Medicine)

ULTRASONOGRAPHIC FINDINGS

- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. This is likely consistent with a diabetic hepatopathy.
- Suspect bilobed gallbladder and proximal bile duct dilation – This does not have the classic appearance of a bilobed gallbladder, and is suspected to be a variant and likely an incidental finding. There is a mild irregular polypoid projection visualized in one of the lumens. The significance of the gall bladder polyps and debris is unclear. This could represent an early mucocele, cholestasis, or chronic inflammation, or could be an incidental finding.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

IMAGING PERFORMED BY

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized to explain the icterus noted in the history. The liver is hyperechoic and borderline large, which is common in diabetic patients. It is possible that there is a component of hepatic lipidosis here as well. If coagulation parameters persist, recommend a fine needle aspirate.

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Additionally, the gallbladder appears abnormal, in that there is some mild debris, a polypoid projection, and there are two dilated areas most consistent with a bilobed gallbladder, although an atypical proximal bile duct dilation cannot be excluded as a possibility. Consider Ursodiol therapy +/- antibiotics, and recommend reimaging of the gallbladder(s) and bile duct to see if this has progressed, increasing concern for a possible bile duct obstruction.

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PATIENT

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The pancreas is prominent and hypoechoic. These changes are most consistent with mild chronic pancreatitis or previous episodes of pancreatic inflammation.

SPECIES

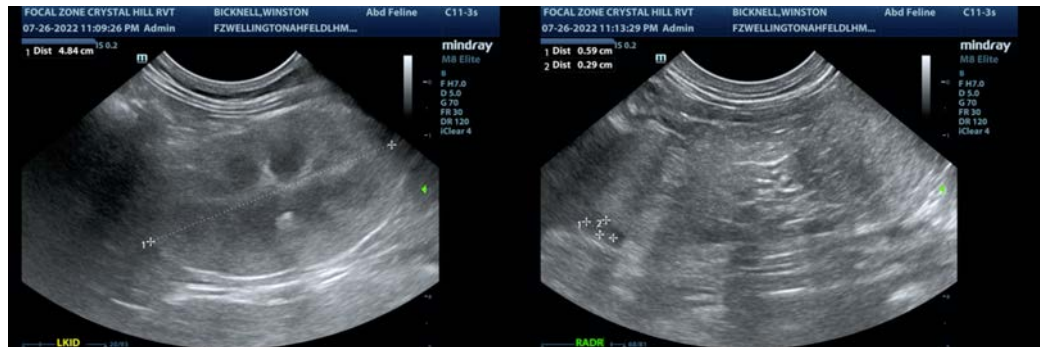
Feline

If liver enzyme elevations persist and cytology is not diagnostic, and repeat imaging of the gallbladder/bile duct is not definitive, then surgical evaluation for biopsies/feeding tube placement, etc. may need to be considered.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

BREED

DMH



SEX

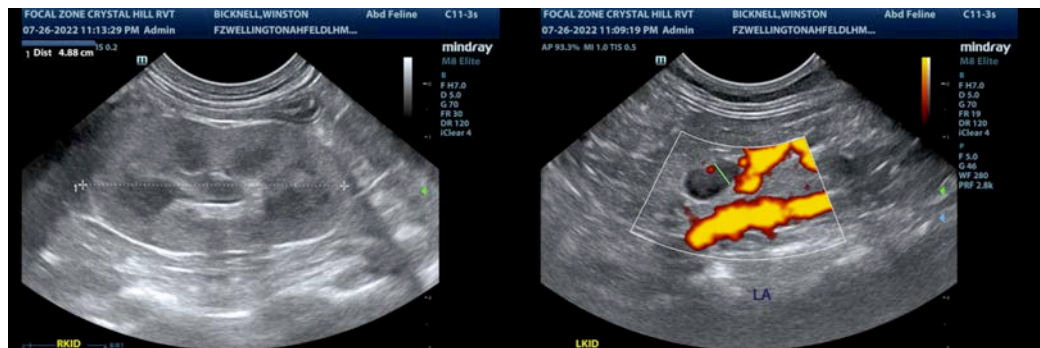
Neutered Male

AGE

16 Years

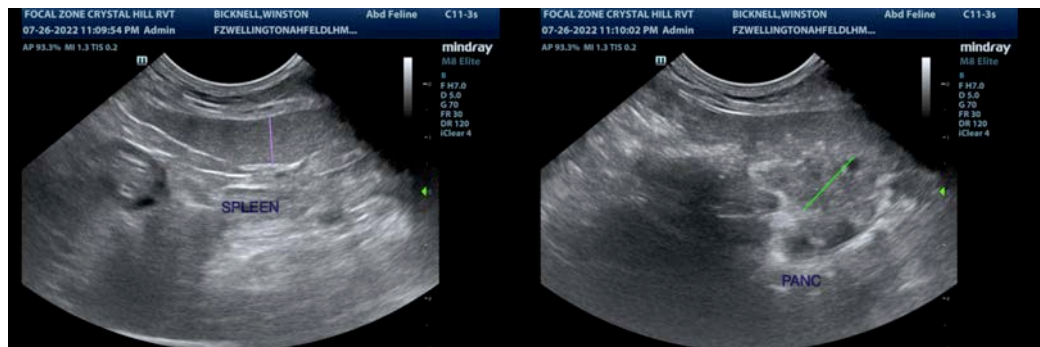
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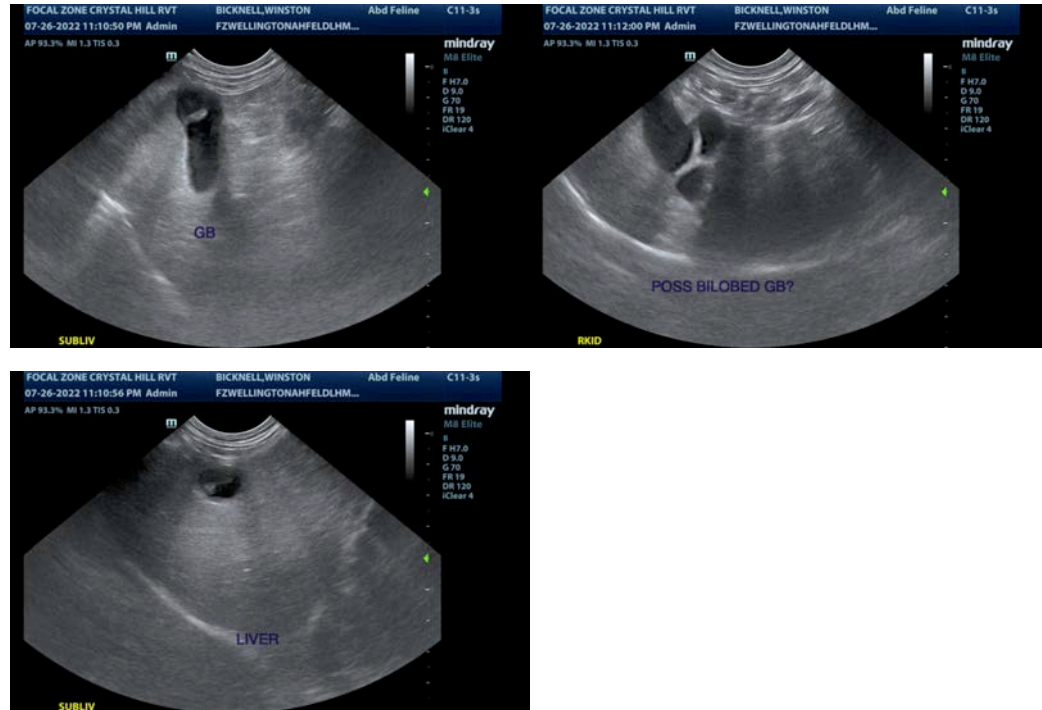
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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