

**DATE PRESENTING CLINICAL SIGNS**

10/21/21 One month history of sporadic, yet recurrent GI signs: anorexia, vomiting, and diarrhea. Responds to bland diet, Pepcid, Cerenia.

PATIENT

Glock Richard
 Current Medications: none currently
 Lab Results: 6/10/21- BW- >ALP=523, >choles=502, >TG's=299, >precPSL=289, T4=1.9
 Date of Previous IntraPet Ultrasound: No previous
 Sedation: not needed
 Stat Report: not requested

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Chihuahua

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.

SEX

Neutered Male

The prostate is normal in size (0.76 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.

AGE

2007

The left kidney has a normal shape and size (3.7 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

8 lb 12 oz

The right kidney has a normal shape and size (4.0 cm) with 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 pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
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 (Small Animal Internal
 Medicine)

Adrenal Glands

The left adrenal gland is normal in size measuring 0.54 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.

HOSPITAL NAME

Alexander AH

The right adrenal gland is normal in size measuring 0.54 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.

REFERRING VET

Dr. Alexander

Spleen

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a 1.61 cm x 1.32 cm hypoechoic, solid mass effect in the head of the spleen.

INVOICE

26573

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. There are numerous, ill-defined, patchy, hypo- and hyperechoic nodules within the parenchyma. Additionally there is a discreet hyperechoic mass effect on the right side of the liver measuring 2.81 cm x 2.97 cm and a more discreet mass effect that alters the hepatic margins and is partially cavitated, measuring 2.1 cm on the right side of the liver.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It largely measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. There is a somewhat focal hypoechoic mass effect visualized in what appears to be approximately the lesser curvature, measuring 1.99 cm x 1.78 cm. This mass is devoid of all layering. 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 0.22 cm. Duodenum wall measured 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 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

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

A brief view of the heart was submitted. No significant pericardial effusion was seen.

PRIMARY FINDINGS

- Focal thickening of the gastric wall – most consistent with a gastric mass. This could be consistent with a benign or cancerous lesion (round cell neoplasia, adenoma, carcinoma, leiomyoma, etc.).
- Heterogeneous liver with an ill-defined hyperechoic mass lesion and a more discreet, somewhat cavitated hypoechoic mass lesion – 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.
- Solid hypoechoic mass lesion in the spleen – This mass distorts the splenic capsule. Differentials for the mass include neoplasia (hemangiosarcoma, hemangioma), hematoma, abscess, other.

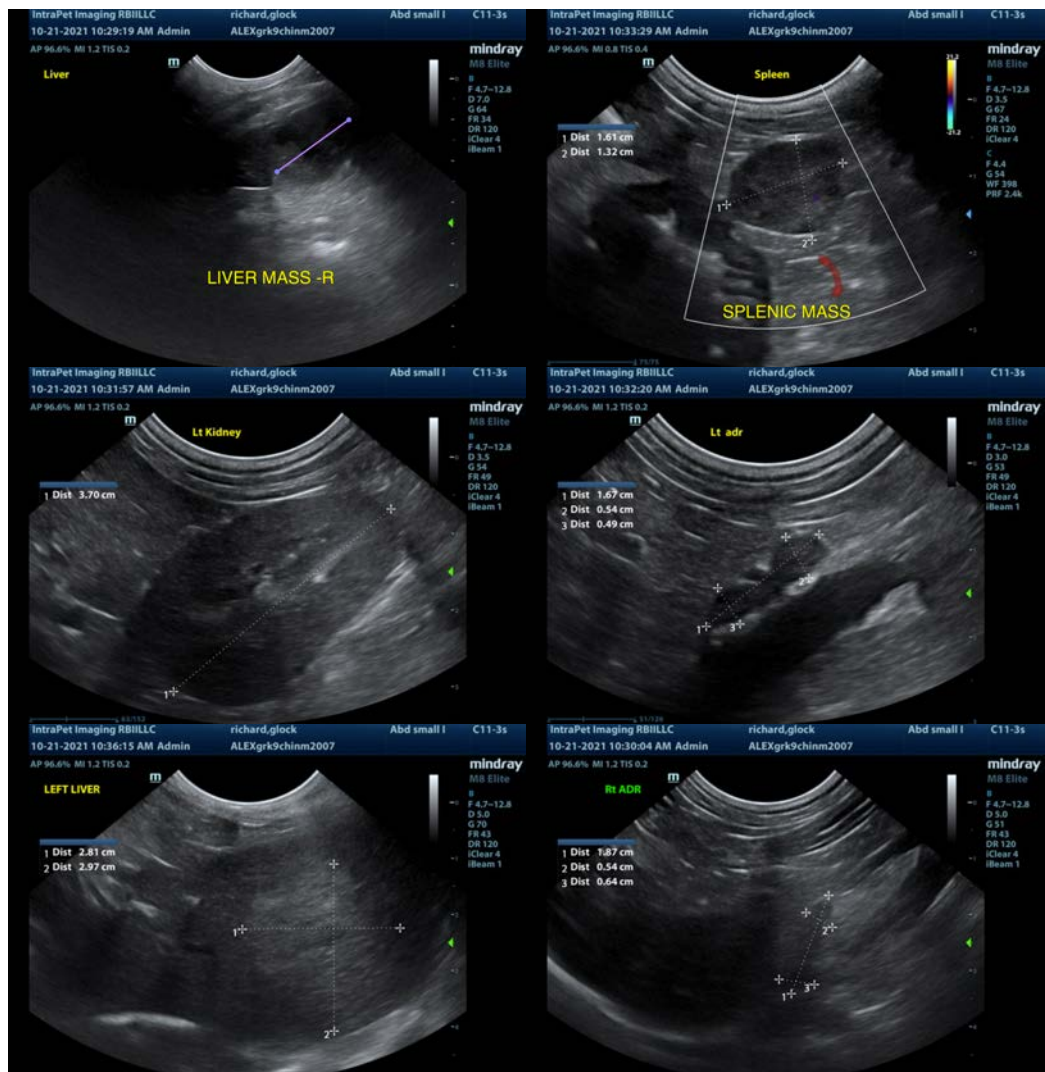
SECONDARY FINDINGS

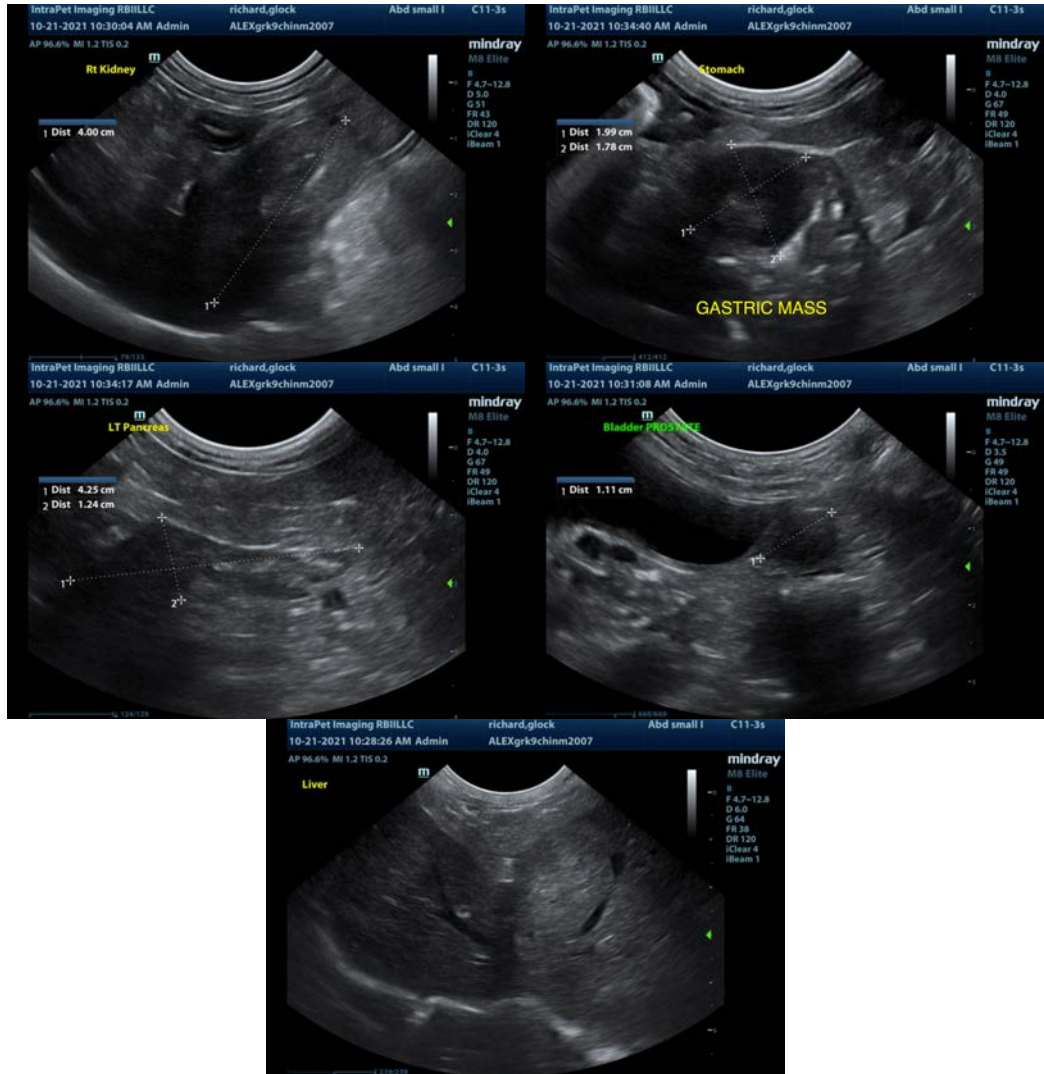
- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a mass lesion in the stomach wall, spleen, and multiple irregularities/mass effects in the liver. These lesions could be related or may be separate entities, and some can be benign while others may be cancerous. There are several ways to approach this issue. I recommend starting with 3-view thoracic radiographs. You could consider a fine needle aspirate of the liver and spleen +/- stomach wall (I think this would be challenging to reach). You could also consider referral to a veterinary surgeon for splenectomy, evaluation of the gastric mass (biopsy versus resection), and biopsy versus resection of the hepatic lesions. Advanced imaging may be necessary to further evaluate the hepatic lesions. If this done, consider obtaining GI biopsies, as it is not 100% clear if these lesions are responsible for the symptoms reported, although I suspect the gastric lesion is playing a role.





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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