



PATIENT

Tobago Roa

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

15 Years

WEIGHT

8.15 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Denise Bruno, LVT,
RDMS

HOSPITAL NAME

Kenilworth AH

REFERRING VET

Dr. Mansour

INVOICE

16224

DATE

6/21/22

PRESENTING CLINICAL SIGNS

History: Anemia. Evaluate for neoplasia Labs attached Bloodwork: hematocrit 27

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. A minor amount of suspended debris was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with moderate chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Slight mineralizations were noted. The right kidney measured 4.05 cm. The left kidney measured 3.66 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.41 cm. The left adrenal gland measured 0.37 cm.

Spleen

The **spleen** was mildly enlarged with uniform, but subtly micronodular parenchyma, and undulating capsular contour. This is consistent with reactive spleen owing to immune stimulus or early infiltrative disease such as mast cell disease or lymphoma. 25-gauge FNA would be ideal if weight loss is an issue to differentiate early round cell neoplasia versus splenitis or reactive spleen all of which can present in this manner. The spleen measured 0.93 cm.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some minor age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable. The left lateral liver revealed a microcystic nodule, measuring 0.63 cm.

Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall. Muscularis/mucosal ratio was 1:1. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness



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tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility. Intestinal thickness measured up to 0.36 cm.

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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some minor parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. Pancreatic duct dilation measured 0.27 cm. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected. The right limb of the pancreas measured 0.87 cm.

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ULTRASONOGRAPHIC FINDINGS

AGE

15 Years

- Diffuse intestinal thickening, hypertrophied muscularis
- Micronodular spleen
- Chronic pancreatic and hepatic changes
- Chronic interstitial nephrosis renal pattern with minor left renal cystadenoma
- Urinary bladder debris

WEIGHT

8.15 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

I'm concerned for potential emerging round cell neoplasia in the spleen +/- the GI tract. CBC path review, splenic FNA +/- bone marrow aspirate would all be indicated. Subxyphoid palpation is recommended to assess for pain or discomfort associated with the pancreas. No overt evidence of neoplasia, as the submucosal layer in the GI tract was intact, however, cannot rule out the potential for a preneoplastic state in this patient.

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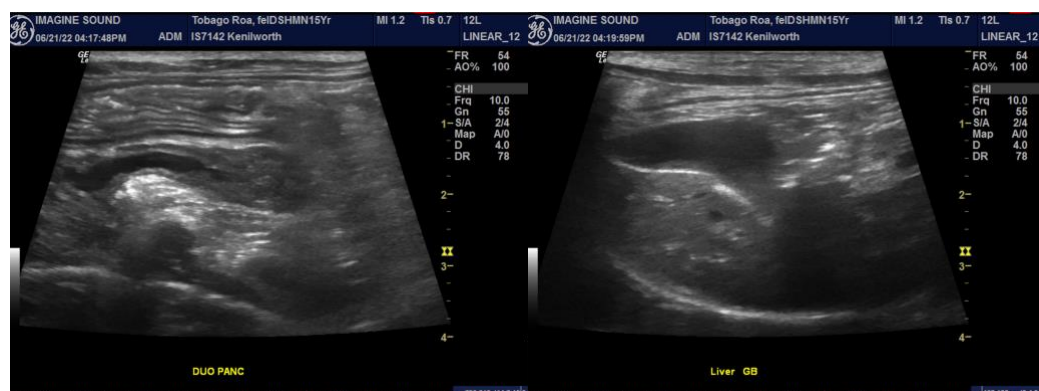
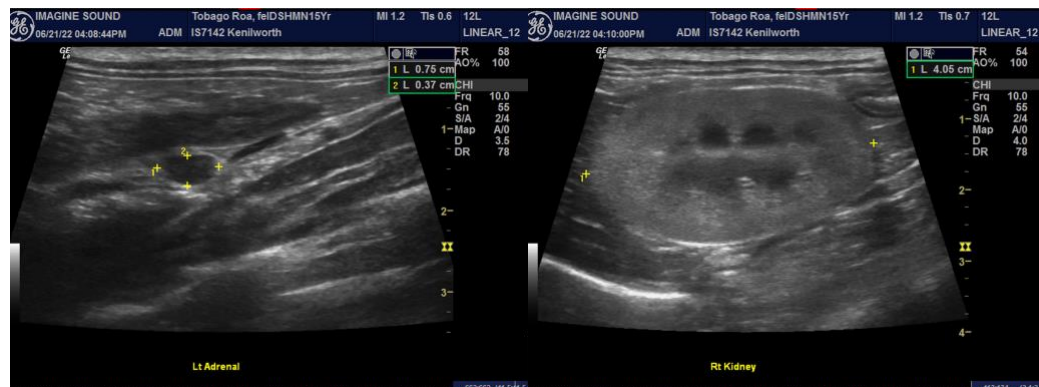
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
 Eric.Lindquist@SonoPath.com