



**PATIENT**

Maggie Gay

**SPECIES**

Canine

**BREED**

Maltese

**SEX**

Female, spayed

**AGE**

9 Yrs.

**WEIGHT**

7 lbs.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(*Small Animal Internal  
Medicine*)

**IMAGING  
PERFORMED BY**

Dr. Reyes

**HOSPITAL NAME**

Mobile Vet Ultrasound

**REFERRING VET**

Dr. Fine

**INVOICE**

14583

**DATE**

2/14/23

**PRESENTING CLINICAL SIGNS**

**History:** History of elevated ALT off/on. No clinical signs. Trial with Denamarin has been done. WBC count has also been elevated

**Abnormal PE/Chem/CBC/UA Results:** January Alt: 248 Alb: 2.5 Glu: 50 WBC: 22.8

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal in size (3.88 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Several varying sized cortical cysts are present, some of which are complex in appearance. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal size (3.72 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Several varying sized cortical cysts are present, some of which are complex in appearance. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**Adrenal Glands**

The left adrenal gland is normal size (0.45 cm at cranial pole) (0.54 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The region of the right adrenal gland is evaluated. No obvious pathology is observed in this region.

**Spleen**

The spleen is normal in size (0.68 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic to hyperechoic relative to the spleen and homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of echogenic debris is observed within the lumen some of which is gravity-dependent and some of which is partially dependent. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall



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thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

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**Pancreas**

**SPECIES**

The right limb of the pancreas is normal in size with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Canine

**BREED**

**Free Abdomen**

Maltese

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

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**ULTRASONOGRAPHIC FINDINGS**

9 Yrs.

**Primary Findings:**

**WEIGHT**

- Non-specific diffuse hepatopathy. Differentials include inflammatory disease, hepatotoxicosis (i.e., copper), vacuolar hepatopathy, infiltrative neoplasia (less likely), other hepatopathy.
- Gallbladder debris, non-mucocele.

7 lbs.

**Secondary Findings:**

**INTERPRETED BY**

- Bilateral degenerative renal changes with dystrophic mineralization and cortical cysts.
- Age-related pancreatic remodeling +/- fibrosis.

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Medicine)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**IMAGING PERFORMED BY**

- Regarding the liver enzyme elevations, consider the following:
  1. Pre and post prandial serum bile acids.
  2. Hepatic tissue sampling (i.e., fine needle aspirate or biopsies- laparoscopic or surgical). If biopsies are performed, aerobic and anaerobic bile cultures should be obtained and additional hepatic tissue samples should be acquired for potential copper quantitation. Leptospirosis testing can also be considered. However, given the apparent chronicity of the liver enzyme elevations, this differential is considered less likely.

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- Regarding the hypoalbuminemia, consider the following:
  1. A fecal evaluation for ova/Giardia
  2. Resting cortisol level to assess for atypical hypoadrenocorticism.
  3. UPC (if proteinuria is present).
- Regarding the hypoglycemia, consider an insulin: glucose ratio to assess for insulinoma.



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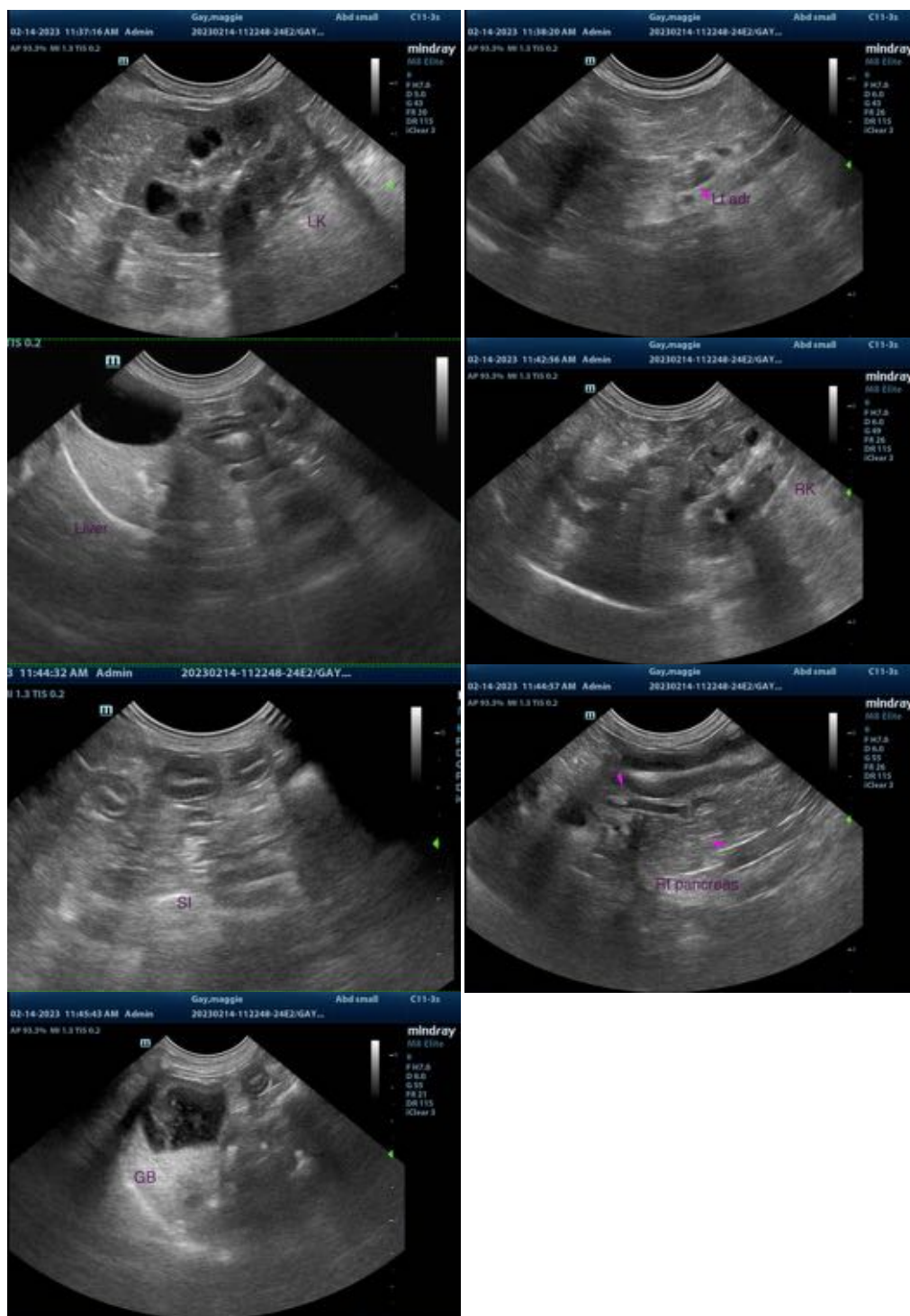
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



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Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
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