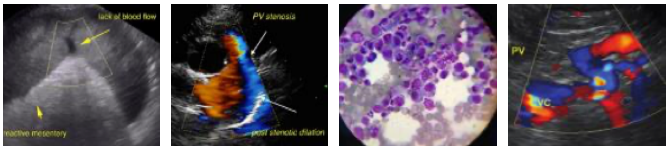
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Marley Loaknauth

SPECIES
Canine

BREED
Maltese

SEX
Male, neutered

AGE
11 Yrs.

WEIGHT
19.8 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. Beltran

INVOICE
13313

DATE
5/3/22

PRESENTING CLINICAL SIGNS

History: Pet was diagnosed with heart murmur few months ago. Chest rads were done at that time to further evaluate heart. On radiographs, a possible Liver mass and cranial abdominal mass was found. Pet is getting an ACTH stim test to screen for Cushing's disease. Also history of anemia. Fasted today
Abnormal PE/Chem/CBC/UA Results: CBC RBC: 4.83 hct: 22.7 HGB: 7.6 MCV: 47 low WBC: 14.8 H Neutr: 12.58 H PLT: 641 K: 5.6 H Alkp: 2416 Chol: 351 Trig: 312 Amyl: 1709

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are 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 prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (6.23 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is thickened and hyperechoic. Several cortical cysts are observed, the largest measuring 0.91 cm in diameter. There is moderate loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths or hydroureter.

The right kidney is normal size (5.59 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is thickened and hyperechoic. Several cortical cysts are observed, the largest measuring 0.93 cm in diameter. There is moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths or hydroureter.

Adrenal Glands

The left adrenal gland is enlarged (2.04 cm at cranial pole) (1.71 cm at caudal pole) (3.68 cm in length) with a mass effect. The parenchyma is heterogeneous with loss of glandular detail. There is no obvious evidence of vascular invasion.

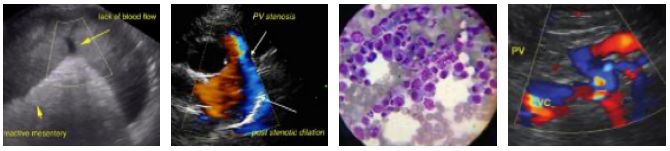
The right adrenal gland is borderline enlarged (0.60 cm at cranial pole) (0.57 cm at caudal pole) (1.86 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.04 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. An ill-defined myelolipoma is observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely and severely mottled and heterogeneous in appearance. There is an irregular mass effect infiltrating the left lateral lobe. A few small ill-defined cystic areas are present. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. Several polypoid like lesions are arising from the luminal surface. A large amount of aggregated echogenic sludge is observed within the lumen, some of which is



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adhered to the wall and much of which is partially dependent to suspended. There is a questionable partial stellate pattern to the sludge. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. 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 segmentally dilated with chyme. The small intestinal wall 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.

Pancreas

A portion of the pancreas is obscured by the hepatomegaly. In the visualized portion of the left limb, the pancreas is prominent in size with slightly irregular peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The hepatic parenchymal changes are most concerning for infiltrative neoplasia (i.e., lymphoma). However, inflammatory disease, hepatotoxicosis (i.e., copper) and/or a benign age-related process (i.e., regenerative nodular hyperplasia) cannot be completely excluded.
- The gallbladder changes could be consistent with a developing mucocele, cholestasis or less likely, fasting.
- Right adrenal mass. Differentials include nodular hyperplasia or tumor (i.e., adenoma, adenocarcinoma, pheochromocytoma). Mild left adrenomegaly, consistent with hyperplastic change.

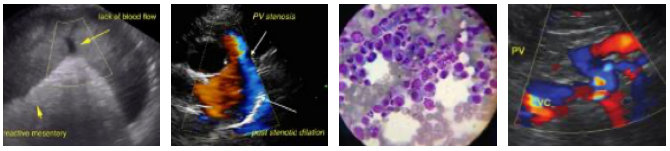
Secondary Findings:

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with cortical cysts.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- To further evaluate the hepatic parenchymal changes, consider tissue sampling (i.e., fine needle aspirate or surgical biopsy, if clotting status is appropriate). Surgical biopsies are more likely to yield a definitive diagnosis. However, round cell neoplasia can often be diagnosed cytologically.
- To further investigate the right adrenal mass, consider the following:

  1. Low-dose Dexamethasone suppression test and urine/blood catecholamine levels (Marshfield Labs) to evaluate for a functional tumor.



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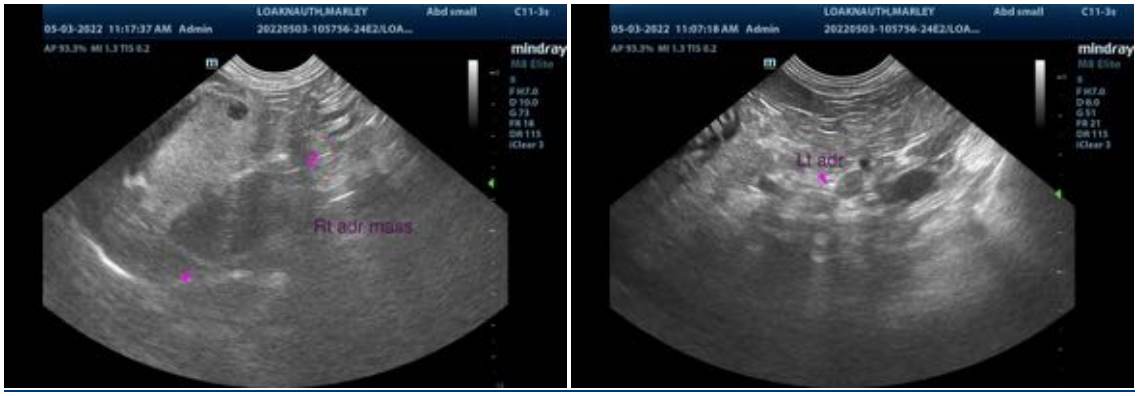
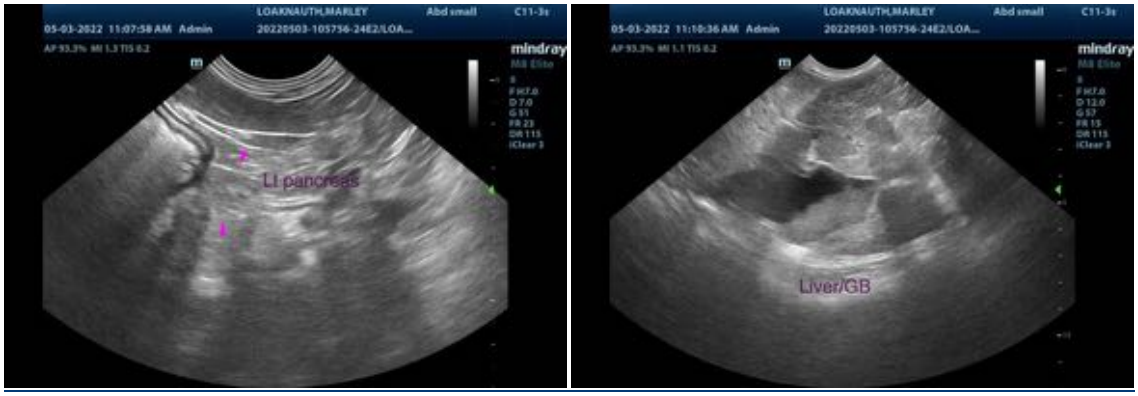
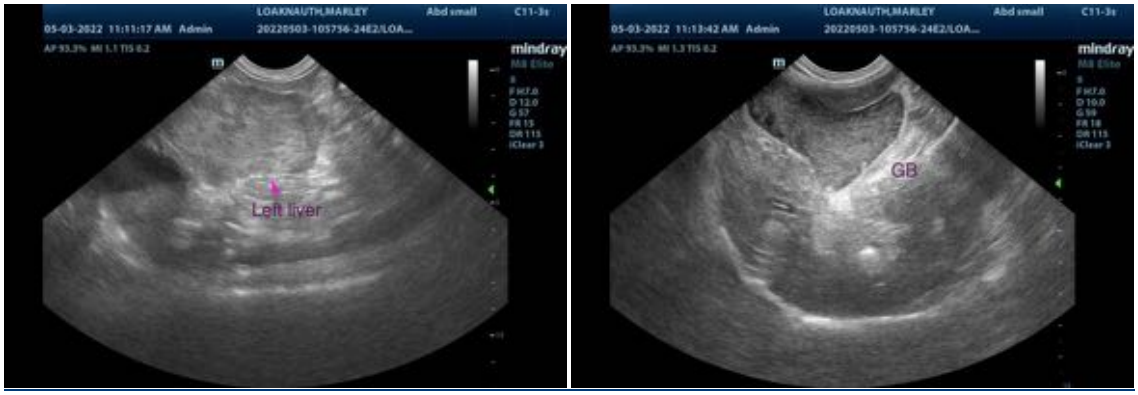
2. Baseline blood pressure measurement to assess for systemic hypertension.
3. If a right adrenalectomy is deemed necessary, an abdominal CT scan would be useful in pre-surgical planning. Referral to a board certified surgeon is strongly recommended if surgery is to be pursued due to the high potential for perioperative complications.







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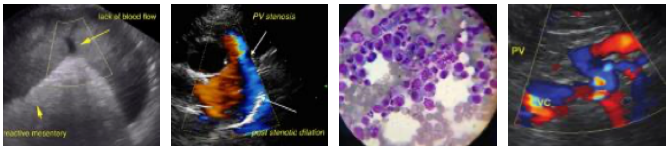

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

Andrea.nicastro@sonopath.com