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Clinical Sonography & Telecytology
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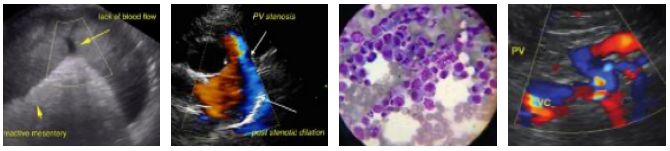


PATIENT
Nikko Tsarouhas

SPECIES
Canine

BREED
Pomeranian

SEX
Male, neutered

AGE
11 Yrs.

WEIGHT
13 lbs.

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

IMAGING PERFORMED BY
Dr. Sitton

HOSPITAL NAME
Sherwood Family Pet Clinic

REFERRING VET
Dr. Sitton

INVOICE
14392

DATE
12/21/22

PRESENTING CLINICAL SIGNS

History: presented for vomiting and diarrhea; Bw changes noted and AUS recommended hx seizures hypothyroid heart dz collapsing trachea cruciate dz (L), bilateral MLPs enuclated OD
Abnormal PE/Chem/CBC/UA Results: progressing liver values ALT 449 U/L 18 - 121 AST 195 U/L 16 - 55 ALKP 1540 U/L 5 - 160 GGT 37 U/L 0 - 13 UA USG 1.038 4+ protein CBC: wnl BP elevated today; UPC pending PT/PTT pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The wall is normal to mildly thickened (up to 0.53 cm) with a slightly irregular mucosal surface. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.92 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (4.55 cm in length) with a normal shape and smooth peripheral contours. The cortex is thickened and hyperechoic to heterogeneous with mild to moderate loss of corticomedullary distinction. A few small cortical cysts are seen. Pinpoint hyperechoic foci are observed within the cortex. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal size (xxx cm in length) with a normal shape and smooth peripheral contours. The cortex is variably thickened and hyperechoic with mild to moderate loss of corticomedullary distinction. A few small cortical cysts are seen. Pinpoint hyperechoic foci are observed within the cortex. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is upper limits of normal size (0.49 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.

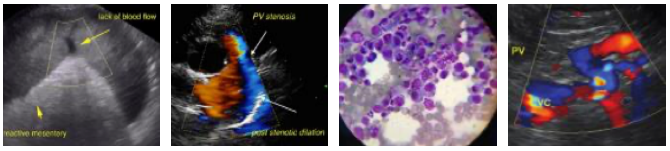
The right adrenal gland is normal size (0.64 cm at cranial pole) (0.45 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.86 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 enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen. A >9 cm heterogeneous cavitated mass is observed deep on the right side,



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adjacent to the diaphragm. The mass appears to cause cranial displacement of the gallbladder. The remaining hepatic parenchyma is homogeneous. 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 aggregated echogenic partially dependent debris/sludge is observed within the lumen. 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 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

The right limb of the pancreas is visible 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.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

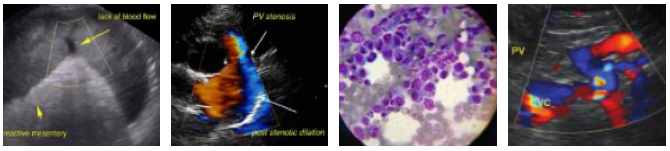
- Large deep cranial/right hepatic mass. Neoplasia (i.e., adenocarcinoma, adenoma, hemangiosarcoma, round cell tumor, other) is suspected. The diffuse hepatic parenchymal changes are non-specific and are most consistent with benign vacuolar hepatopathy.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The bilateral renal changes are most consistent with chronic interstitial nephritis with dystrophic mineralization.
- The urinary bladder wall thickening could be consistent with cystitis and/or may be artifactual due to lack of luminal distention. Correlation with the patient's urinalysis findings and clinical history is recommended.
- Borderline left adrenomegaly.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- A fine needle aspirate of the hepatic mass can be considered if clotting status is normal. A 25-gauge needle should be used and care should be taken to avoid cavitated areas due to the risk of iatrogenic hemorrhage associated with the procedure. If cytology results are inconclusive,



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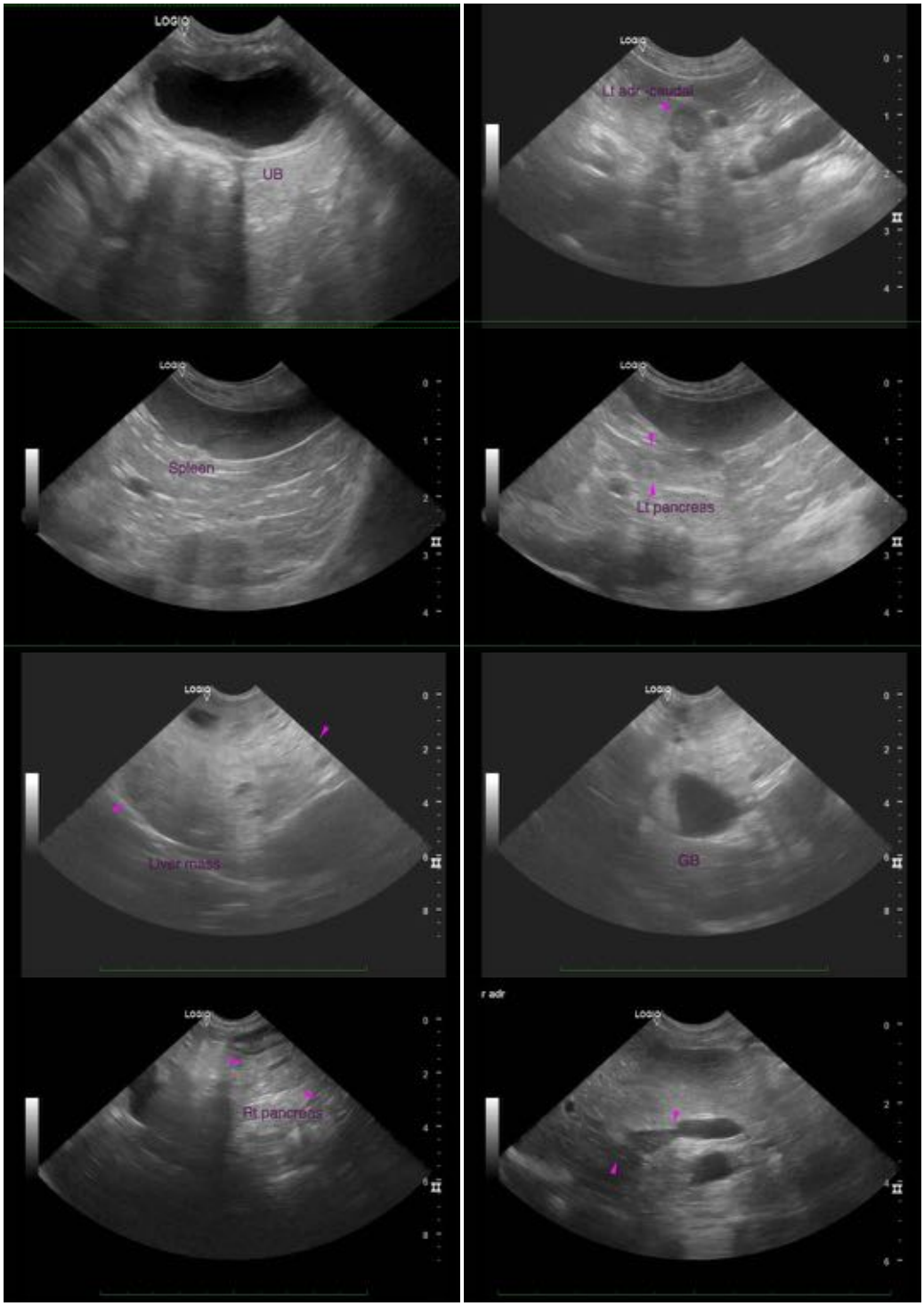
consider hepatic mass removal or debulking. An abdominal CT scan would be useful in pre-surgical planning.



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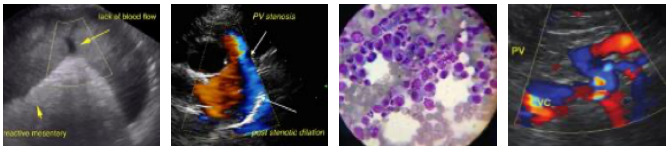

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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