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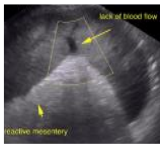
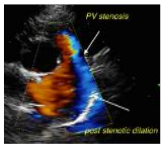
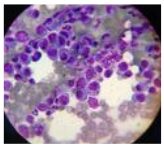
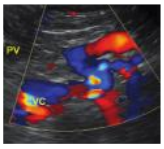

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Tater Freeman

SPECIES
Canine

BREED
Puggle

SEX
Neutered Male

AGE
11 years

WEIGHT
34.2 lbs

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

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Animal General On Hudson

REFERRING VET
Dr. Daniel Tierney

INVOICE
10465

DATE
3/2/22

PRESENTING CLINICAL SIGNS

History: Patient presents for increasing liver values.
Abnormal PE/Chem/CBC/UA Results: ALT 243, ALP 759, BUN 43, creat. 1.7, Ca 12., K 5.6, chol. 345.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. At the ventral apical aspect, a 1.17 x 0.73 cm focal thickening is observed within the wall. The remainder of the wall is normal in thickness with a normal layering pattern. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (1.31 in length) (0.70 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (4.27 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is minimal loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (5.35 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.53 cm at cranial pole) (0.60 cm at caudal pole) (1.44 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.

The right adrenal gland is borderline enlarged (1.14 cm at cranial pole) (0.79 cm at caudal pole) (1.80 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 (1.09 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is observed throughout the parenchyma. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with irregular peripheral contours. A >6 cm irregular heterogenous mass is observed at on the left side. The mass causes capsular expansion. In the remainder of the liver, the parenchyma is isoechoic relative to the spleen and mottled in appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

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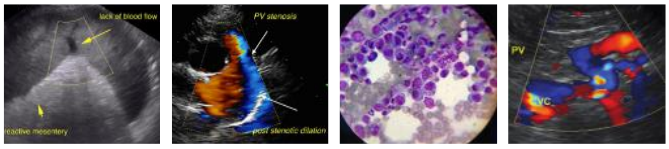

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The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal.

Gastrointestinal
The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. 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 or overt infiltrative disease is noted.

Pancreas
The base and right limb of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic 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 evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Left hepatic mass. Neoplasia (i.e., adenocarcinoma, adenoma, round cell tumor), is considered likely, with a lower possibility of a benign process (i.e., excessive regenerative nodular hyperplasia). The diffuse hepatic parenchymal changes could be consistent with a benign age-related process, (i.e., vacuolar hepatopathy and/or regenerative nodular hyperplasia), inflammation, metastatic neoplasia, other hepatopathy.
- Focal urinary bladder wall thickening (ventral apical aspect). Differentials include emerging neoplasia, focal cystitis, other.

Secondary Findings

- Minor age-related renal changes
- Borderline right adrenomegaly
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATION

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.

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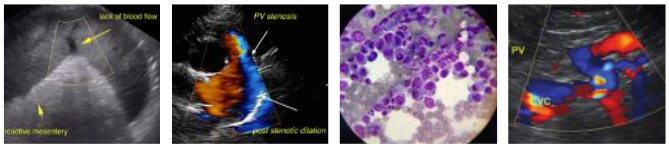

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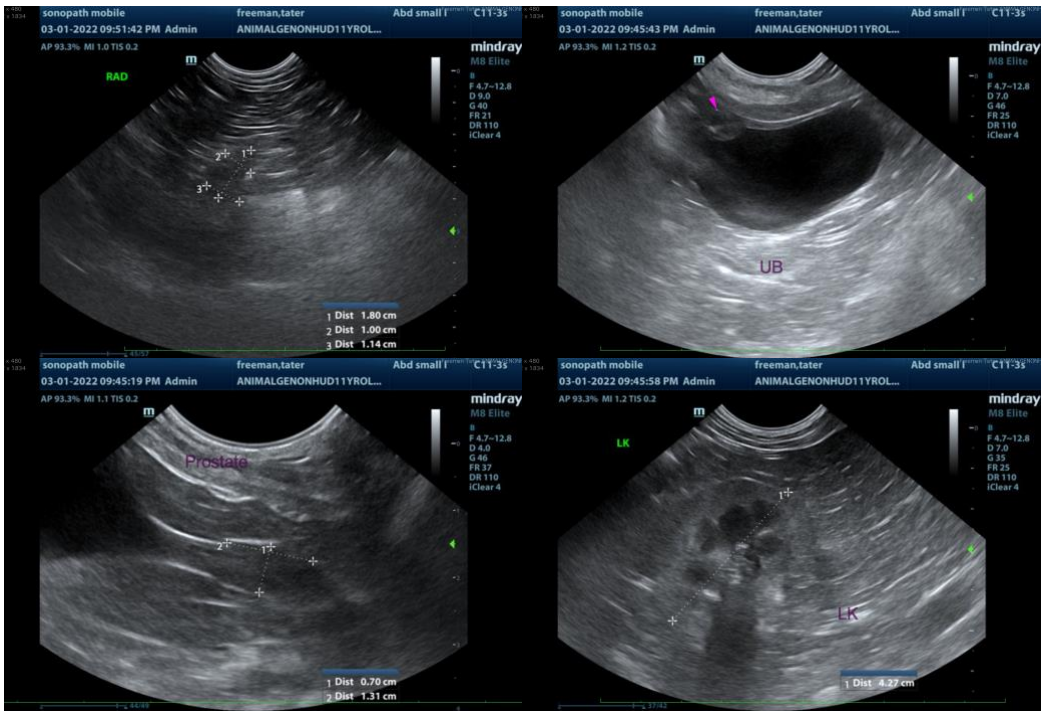
- Depending on the cytology results from the hepatic mass, surgical removal may be warranted.
- Regarding the azotemia, consider the following:
  1. Urinalysis (if not already performed)
  2. UPC (if proteinuria is present)
  3. Urine culture and sensitivity
  4. Baseline blood pressure measurement
  5. +/- transition to a prescription renal diet, if the patient will tolerate it.
- Regarding the hypercalcemia, consider an ionized calcium/PTH/PTHrP, as well as a thorough rectal exam to evaluate for anal gland masses.
- Regarding the urinary bladder wall nodule, consider a urine BRAF test to further assess for lower urinary tract neoplasia.
- Also consider biopsy/removal of the lesion if the patient goes to surgery for liver mass removal.



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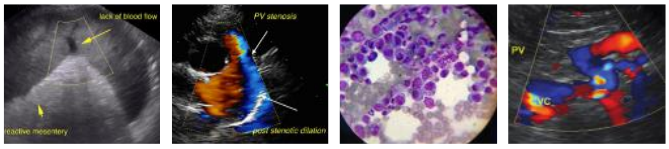

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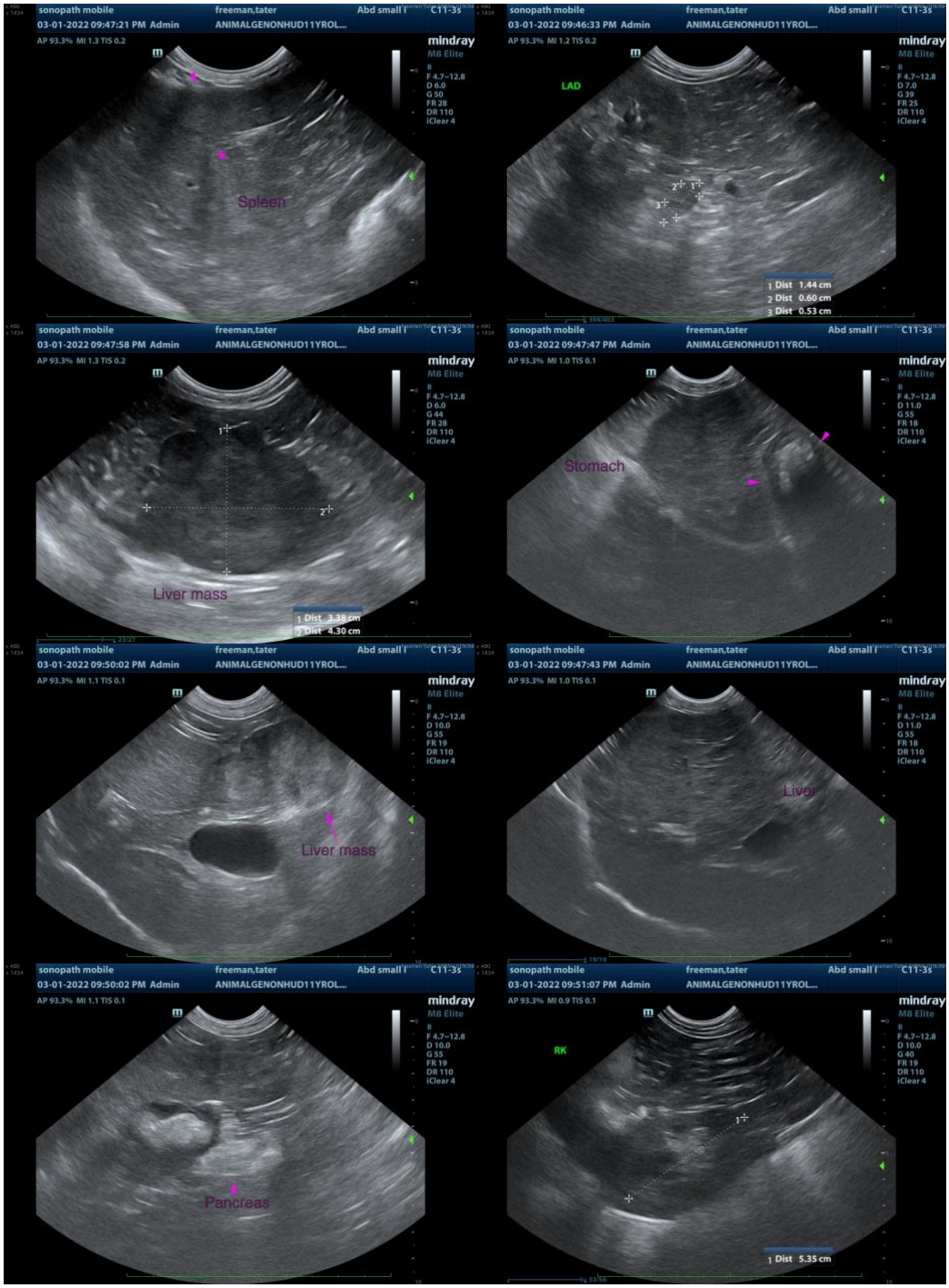

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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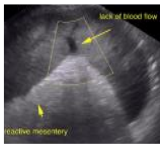
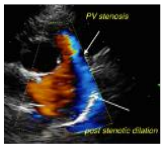
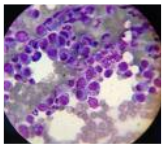
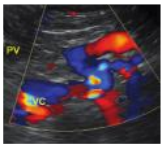

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