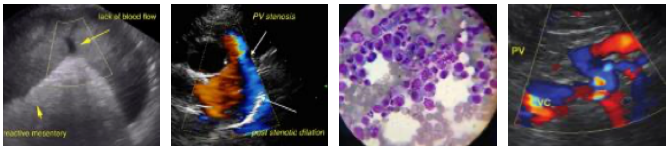
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Sully Amato

SPECIES
Canine

BREED
Shih Tzu

SEX
Male, neutered

AGE
12 Yrs.

WEIGHT
30.2 lbs.

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

IMAGING PERFORMED BY
Jessica Miller

HOSPITAL NAME
ACC Landing

REFERRING VET
Dr. Casulli

INVOICE
12092

DATE
9/15/21

PRESENTING CLINICAL SIGNS

History: Severe anxiety, Hx of increased liver enzymes + Ca++ 13.1 (4/21) No current meds.
Abnormal PE/Chem/CBC/UA Results: (4/21) TP 7.8, ALT 156, Alk Phos 1631, Ca++ 13.1, UA: Protein +2 SG: 1.024

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall is normal in thickness. A small to moderate amount of gravity dependent mineralized sand is observed within the lumen as well as a scant amount of suspended echogenic debris. No distinct calculi are seen. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.82 cm in width) with a normal shape and smooth peripheral contours. The parenchyma is mostly homogeneous. A focus of mineralization is observed at the caudal aspect. The prostatic urethra is not overtly dilated.

The left kidney is normal size (4.84 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is variably thickened and there is moderate loss of corticomedullary distinction. Several nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.26 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is variably thickened and there is moderate loss of corticomedullary distinction. Several nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.63 cm at cranial pole) (0.61 cm at caudal pole) (2.22 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.

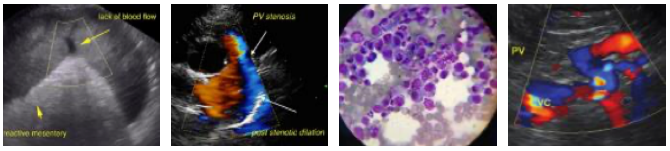
The right adrenal gland is normal size (0.78 cm at cranial pole) (0.61 cm at caudal pole) (2.44 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.12 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 prominent in size with swollen curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is normal in thickness. A few polypoid like



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lesions are arising from the luminal surface. A small to moderate amount of gravity-dependent echogenic debris 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 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 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 left and right limbs 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

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely, particularly in light of the liver enzyme pattern.
- Gallbladder debris- incidental.

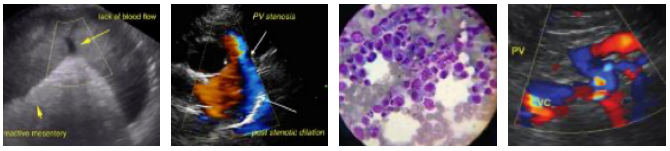
Secondary Findings:

- Bilateral age-related renal changes with non-obstructive nephroliths.
- Urinary bladder sand.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The mineralized area observed in the prostate may represent mineralization within the distal prostatic urethra or within the parenchyma.

*An obvious cause for the patient's hypercalcemia is not identified in this study. Differentials include occult neoplasia, primary hyperparathyroidism, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the hypercalcemia, consider the following diagnostics:
    - Rectal exam is recommended to assess for anal gland masses.



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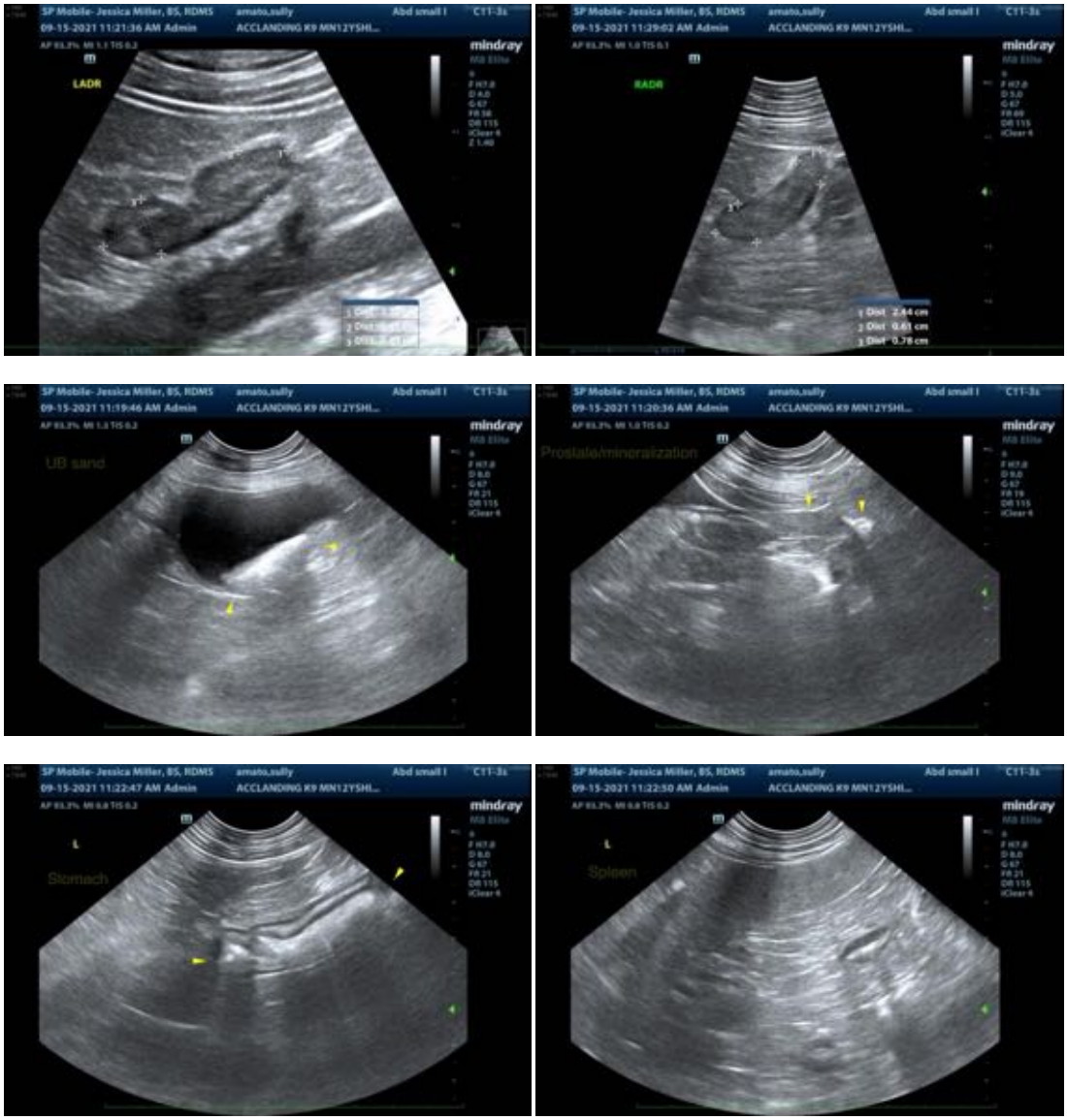
- Three-view thoracic radiographs should be considered to assess for occult neoplasia.
- PTH/PTHrP and ionized calcium levels (Michigan State University Veterinary Diagnostic Laboratory is recommended; https://cvm.msu.edu/vdl/laboratory-sections/endocrinology)

- Regarding the elevated liver enzymes, serial monitoring (i.e., very 3-4 months) is recommended. If liver values continue to increase, repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.



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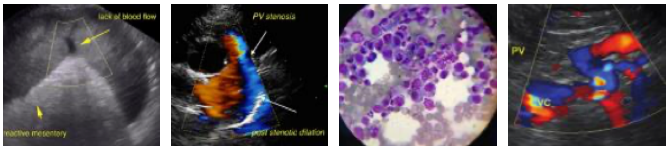

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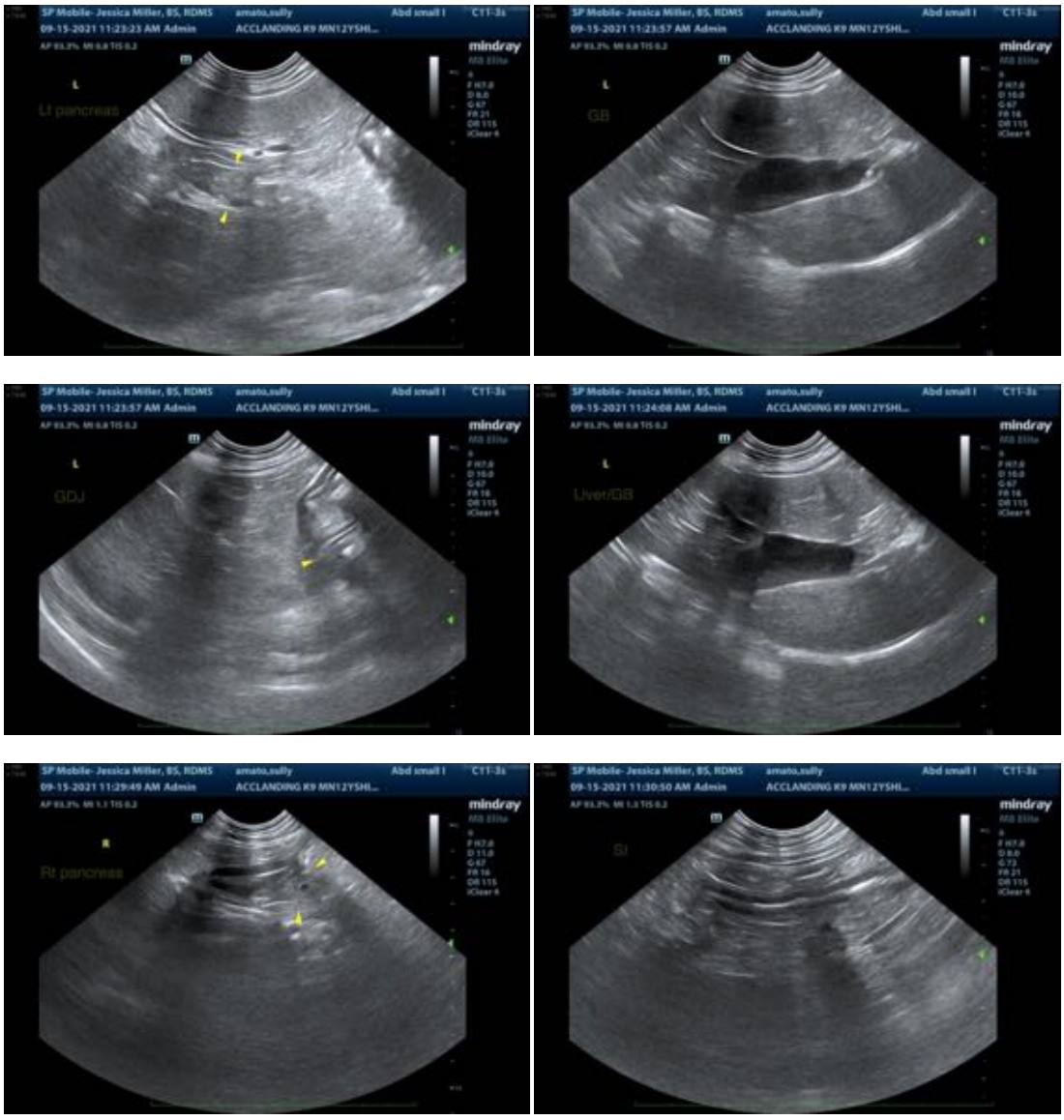

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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