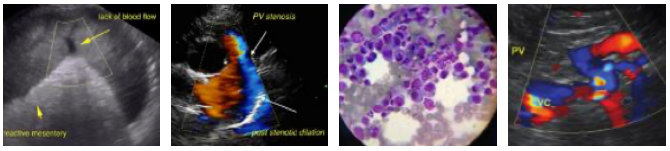
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Ivy Shoup

SPECIES
Canine

BREED
Pit bull mix

SEX
Female, spayed

AGE
9 Yrs.

WEIGHT
80 lbs.

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

IMAGING PERFORMED BY
Amy Mayhew

HOSPITAL NAME
SVS Imaging Michigan

REFERRING VET
Briarwood VH

INVOICE
13740

DATE
7/18/22

PRESENTING CLINICAL SIGNS

History: not able to walk, distended abdomen, pu/pd
Abnormal PE/Chem/CBC/UA Results: increased liver values, loss of detail on abdominal radiographs

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is distended. The wall is normal in thickness with a smooth mucosal surface and moderate amount of echogenic debris is observed within the lumen, some of which is gravity-dependent and some of which is suspended. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (7.74 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (8.15 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild 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 mildly enlarged (0.85 cm at cranial pole) (1.04 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 enlarged (1.52 cm at cranial pole) (0.94 cm at caudal pole) (2.57 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.

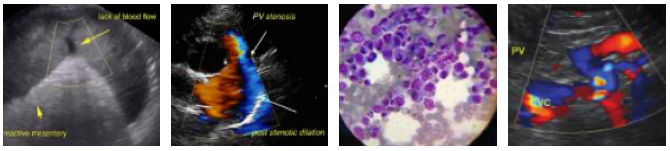
Spleen

The spleen is normal in size (1.70 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 slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and subtly heterogeneous in appearance with 1-2 small cystic areas, the largest measuring 0.94 cm in diameter. Vascular 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 moderate amount of aggregated echogenic sludge is observed within the lumen, some of which is partially dependent and some of which is adhered to the luminal surface. There is questionable formation of a partial stellate pattern at the periphery. The cystic and common bile ducts are normal/not seen.

Gastrointestinal



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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 evidence of free fluid. A 1.74 cm medial iliac lymph node is visible. The node is normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Mild bilateral adrenomegaly. This finding could be consistent with hyperplastic change associated with pituitary dependent hyperadrenocorticism or may be a normal variant for this patient. Correlation with the patient's clinical history is recommended.
- The hepatic parenchymal changes are non-specific and may be secondary to vacuolar hepatopathy, regenerative nodular hyperplasia or other hepatopathies (i.e., inflammatory disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia (i.e., lymphoma)). Correlation with the patient's liver enzyme pattern is recommended.
- The gallbladder changes could be consistent with a developing mucocele, cholestasis or fasting.

Secondary Findings:

- Minor bilateral, age-related renal changes.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The urinary bladder debris could be consistent with cells, crystals, fat droplets and/or exfoliated material.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- If the ALP is disproportionately elevated relative to the ALT, consider further testing for Cushing's disease (i.e., low-dose Dexamethasone suppression test). If the ALT is substantially elevated, consider further hepatic workup (i.e., pre and post prandial serum bile acids +/- hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy). If surgical biopsies are pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation are recommended. Thoracic radiographs should be performed prior to any anesthetic event.

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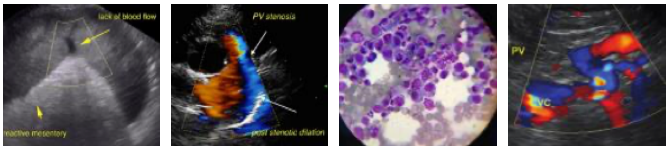

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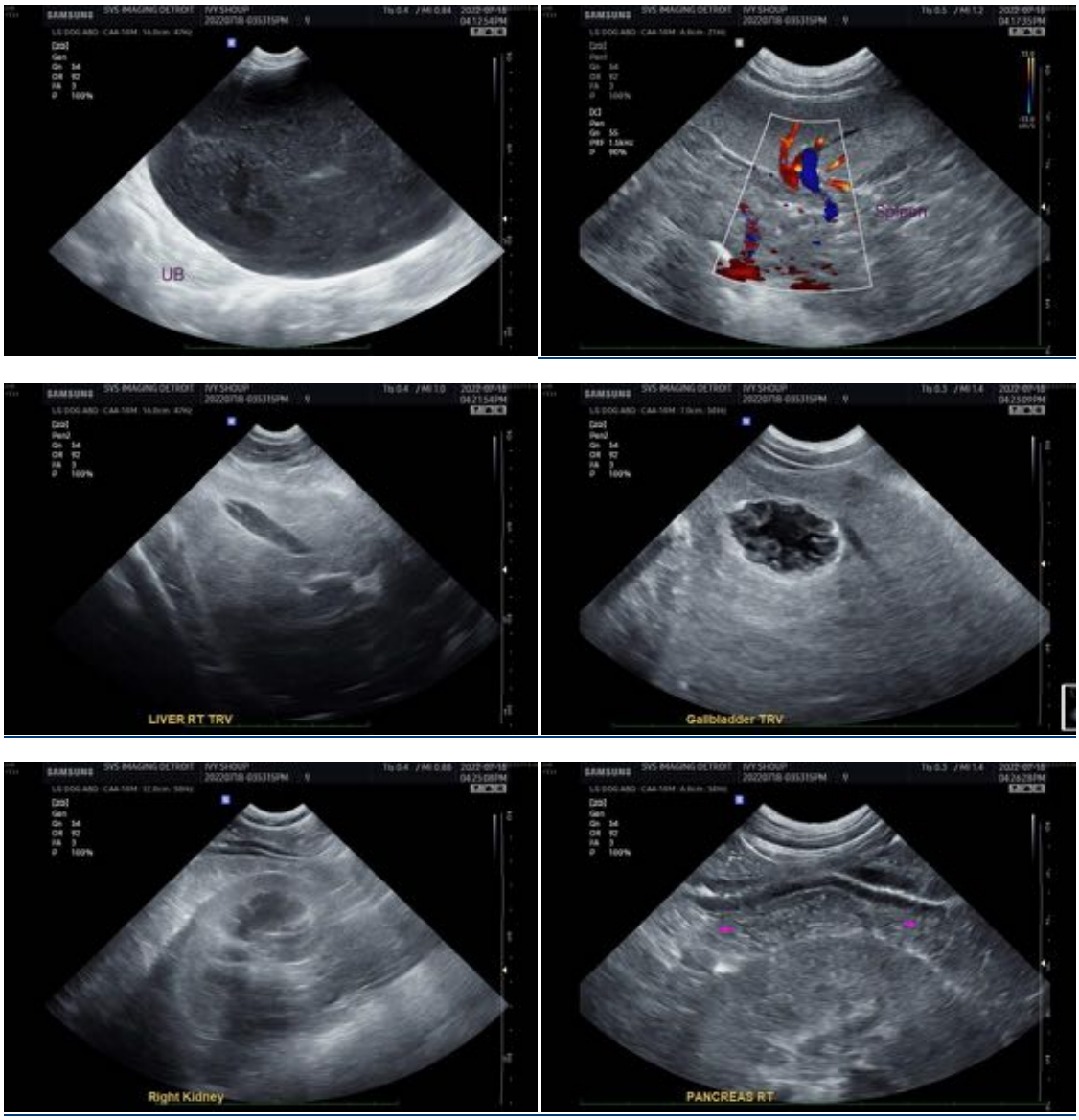
- Regarding the gallbladder changes, consider initiation of Ursodiol therapy. Alternatively, a repeat ultrasound can be considered in 2-3 weeks, preferably 2 hours post small meal. If the gallbladder changes are similar to today's scan, Ursodiol therapy can be initiated at that time.
- Given the urinary bladder debris, a urinalysis +/- urine culture and sensitivity should be considered.
- Given the inability to ambulate, orthopedic and neurologic examinations are recommended.



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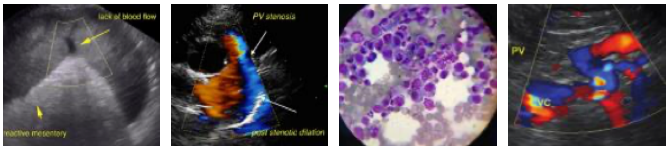

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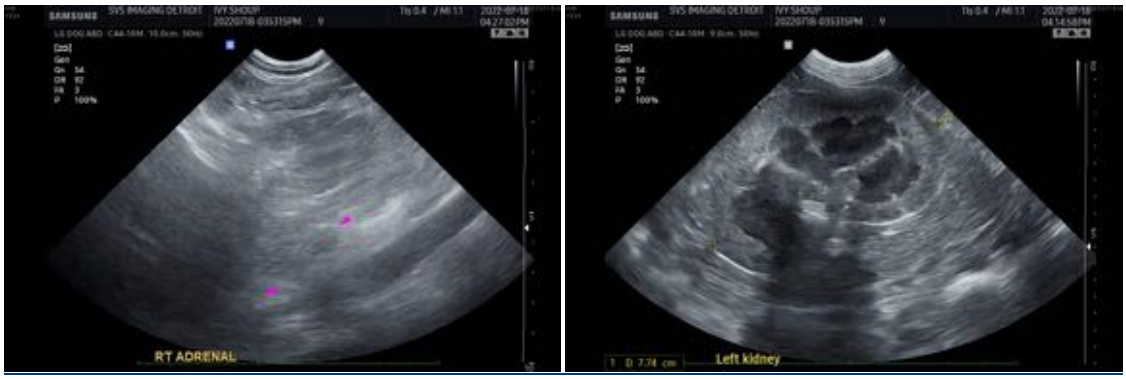

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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