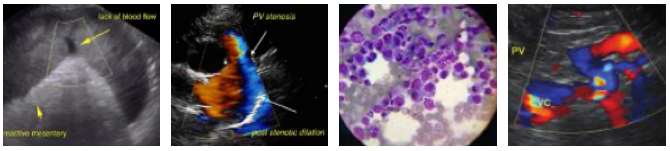
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Axl Olson

SPECIES
Canine

BREED
Chihuahua

SEX
Male, neutered

AGE
12 Yrs.

WEIGHT
5.2 lbs..

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

IMAGING PERFORMED BY
Amy Mayhew

HOSPITAL NAME
SVS Imaging Michigan

REFERRING VET
Rochester VH

INVOICE
14292

DATE
12/5/22

PRESENTING CLINICAL SIGNS

History: Recheck Bloodwork.
Abnormal PE/Chem/CBC/UA Results: elevated ALT levels (293), possible decreased liver function due to bile acids test (pre-feeding 39.2, post-feeding 69)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended. The wall is of appropriate thickness for the level of repletion. A small amount of echogenic debris is suspended within the lumen. 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 (0.40 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 (3.24 cm in length) with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Several cortical cysts are present, a few of which are septated. Some of the cysts cause expansion of the renal capsule. A few small non-obstructive nephroliths are visualized. There is no evidence of pyelectasia or hydroureter.

The right kidney is normal in size (3.58 cm in length) with a slightly irregular shape. A few small cortical cysts are visualized. At least one of the cysts causes slight capsular expansion. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

Adrenal Glands

The left adrenal gland is normal size (0.29 cm at cranial pole) (0.39 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.

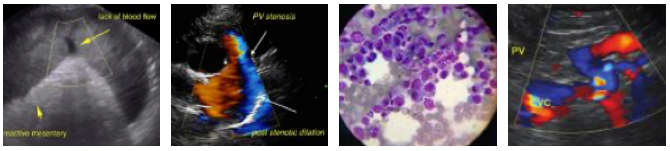
The right adrenal gland is normal size (0.66 cm at cranial pole) (0.47 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.85 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 hypoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. 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. A large amount of aggregated, hyperechoic, suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common



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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 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:

- The gallbladder changes are most consistent with an emerging mucocele.
- Non-specific diffuse hepatopathy. Differentials include inflammatory disease (i.e., chronic hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), Leptospirosis, reactive hepatopathy, microvascular dysplasia, other.

Secondary Findings:

- Bilateral, age-related renal changes with non-obstructive nephrocalcinosis and cortical cysts.
- 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 RECOMMENDATIONS

- If an aggressive approach is desired, consider a prophylactic cholecystectomy along with liver biopsies, aerobic and anaerobic bile cultures and copper quantitation. Prior to anesthesia, clotting times (PT/PTT) as well as three-view thoracic radiographs should be performed.
- If a more conservative approach is desired, consider initiation of Ursodiol therapy and hepatic antioxidants (i.e., Denamarin) with serial monitoring of the patient's liver values and evaluation of the gallbladder via ultrasound every 6-8 weeks to assess for progression to a fully formed mucocele. Empirical treatment for bacterial cholangiohepatitis (i.e., broad spectrum antibiotics) can also be considered. However, if the patient's liver values do not improve within 7-10 days of initiating antibiotics, medication should be discontinued.
- Leptospirosis testing (i.e., blood and urine PCR, serology) can also be considered, particularly if the clinical suspicion for disease is high.

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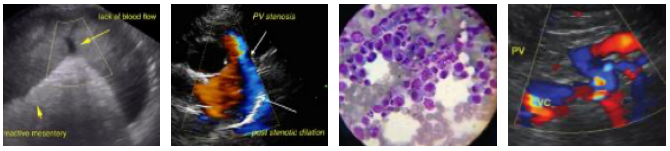

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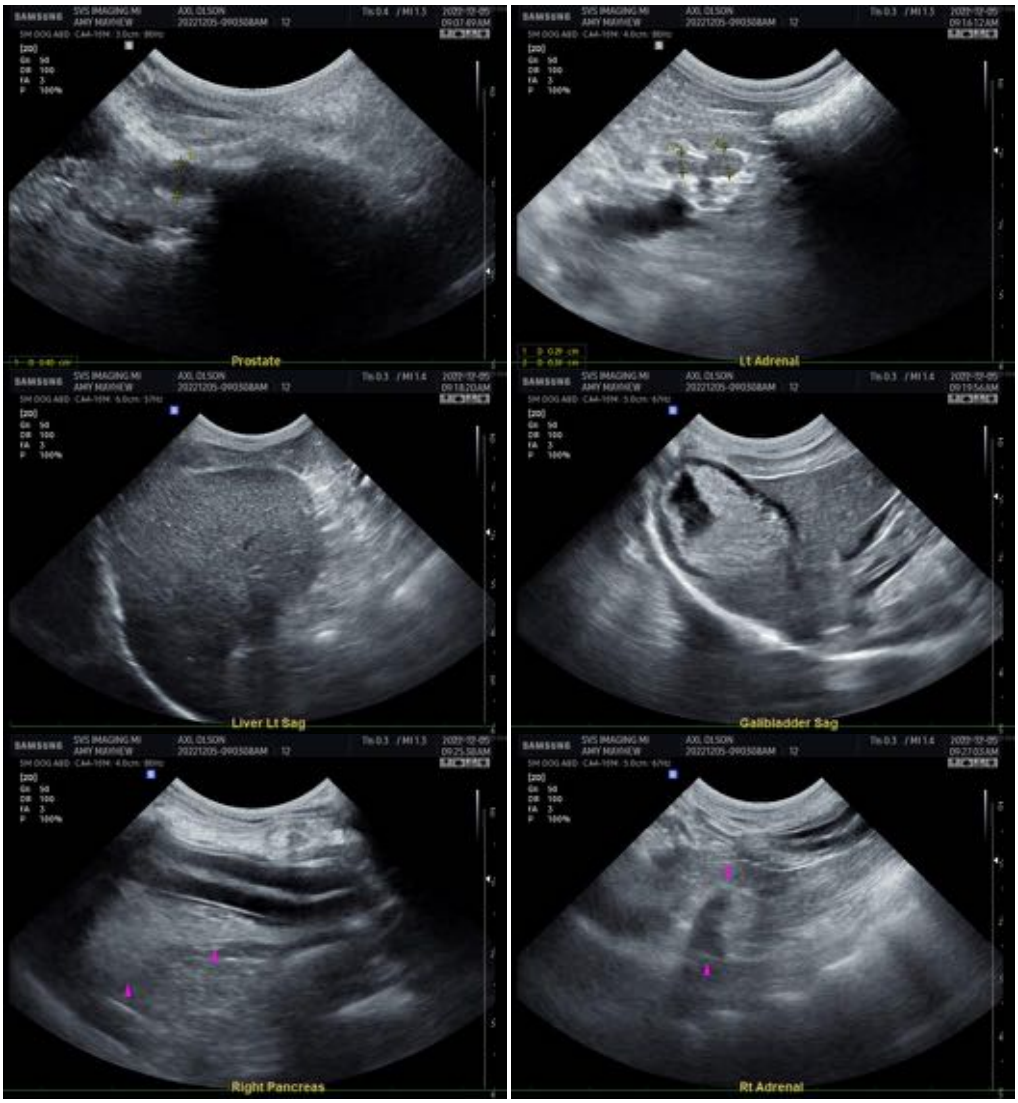

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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