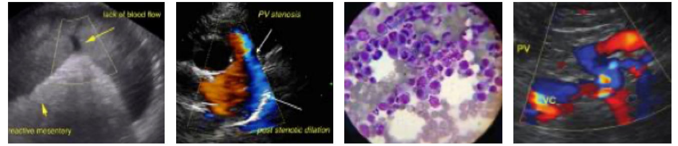


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Peter Stauder

SPECIES
Canine

BREED
Miniature Pinshcer

SEX
Male, neutered

AGE
11 Yrs. 5 months

WEIGHT
7.07 kg.

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

IMAGING PERFORMED BY
Tom McNeill

HOSPITAL NAME
SVS Imaging CT

REFERRING VET
Dr. Galvis

INVOICE
14598

DATE
2/15/23

PRESENTING CLINICAL SIGNS

History: Peter presented to the MVS Emergency Service on Feb 15, 2023, at 8:45am, for evaluation of inappetence, lethargy. A couple weeks ago Peter had an episode of vomiting and lethargy which lasted for a couple days before resolving on its own. He had another short stint of vomiting and lethargy about a week after this - also resolved on its own. Since Saturday (2/11), Peter has become really lethargic. He is not getting up or going outside on his own. He has been refusing all water since Sat-Sun, and hardly eating at all either. No vomiting since the last time a week or two ago. No known ingestion of anything inappropriate. Owners brought Peter to pcDVM on Monday (2/13) where they did bloodwork and took x-rays. Per owners, Peter has elevated TBIL, is anemic, and rads revealed a potential abdominal mass.
Abnormal PE/Chem/CBC/UA Results: pDVM bloodwork (2/14): ALP 177 (5-160) TBili 0.4 (0-0.3) GGT 3 (0-13) HCT 20.6 In-house bloodwork at MVS today: HCT 15.7 HGB 4.5 MCH 21 MCHC 28.7 Retic 215.3k WBC 20.65 Neu 12.3k Lym 5.37k Mono 2.78k

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

The prostate is normal to slightly prominent in size with normal curvilinear peripheral contours. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (4.74 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. Pinpoint hyperechoic foci are observed in the cortex. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (5.08 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. Pinpoint hyperechoic foci are observed in the cortex. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

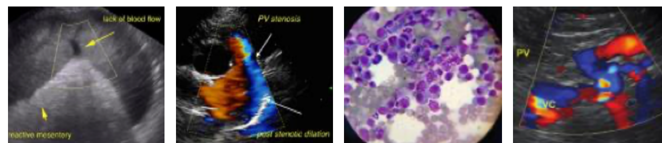
Adrenal Glands

The left adrenal gland is mildly enlarged (0.56 cm at cranial pole) (0.65 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 mildly enlarged (1.17 cm at cranial pole) (0.69 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 (1.74 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small, ill-defined hyperechoic nodules/areas are observed throughout the organ. Splenic vasculature is normal.



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Liver

The liver is subjectively normal to slightly prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance. A 1.34 cm hyperechoic nodule/area is observed at the caudal aspect on the left side. In addition, a 1.59 cm ill-defined isoechoic to slightly heterogeneous nodule is observed deep on the left side. 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 amount of mostly 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 ileocecocolic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

There is no obvious evidence of free fluid. 2 prominent hepatic lymph nodes are visualized, the largest measuring 1.83 cm in length. The nodes both contain cystic areas.

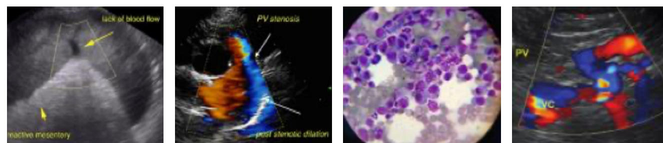
ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- An obvious cause for the patient's regenerative anemia is not identified in this study. Considerations include hemolysis (i.e., immune mediated hemolytic anemia) or blood loss (i.e., GI, other).

Secondary Findings:

- Mild bilateral age-related renal changes with subtle dystrophic mineralization.
- Mild bilateral adrenomegaly.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.
- The hepatic parenchymal changes, including the nodules, trend toward the benign (i.e., regenerative nodular hyperplasia) with a lower possibility of inflammatory or infiltrative disease.
- The significance of the cystic hepatic lymph nodes is unclear. They likely represent reactive change with a lower possibility of emerging neoplasia.



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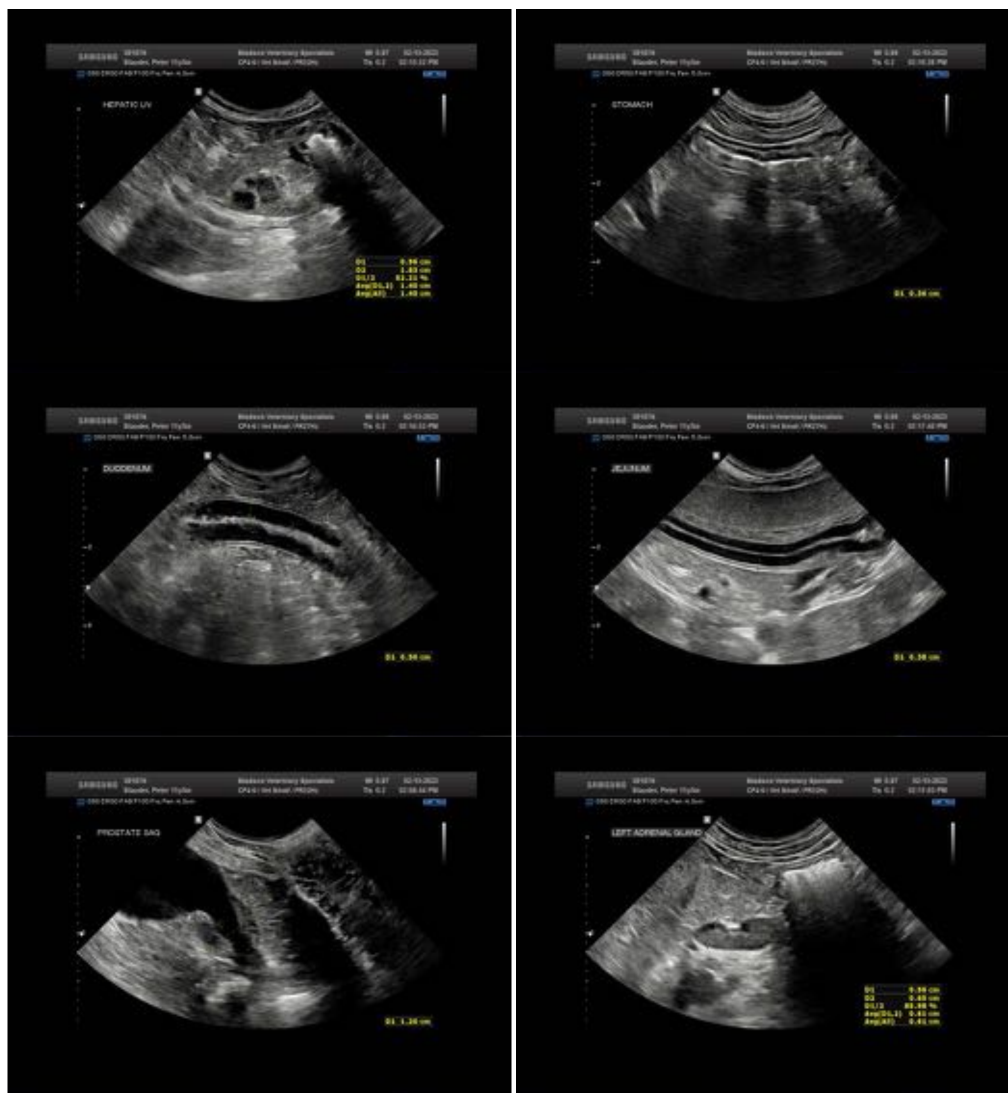
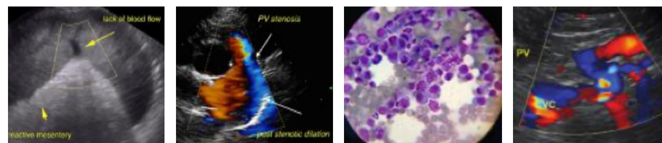
- The prominent prostate may be a normal variant for this patient or may represent hyperplasia (if the patient was neutered late in life) or less likely, emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pathology in the chest.
- A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab) is recommended. https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease/.
- A slide agglutination test is recommended to assess for autoagglutination.
- Depending on the results from the above diagnostics, treatment for immune mediated hemolytic anemia (i.e., immunosuppressive medication), may be warranted.
- Regarding the hypoechoic hepatic nodule/area, consider a recheck ultrasound in 2-3 months to assess for progression.





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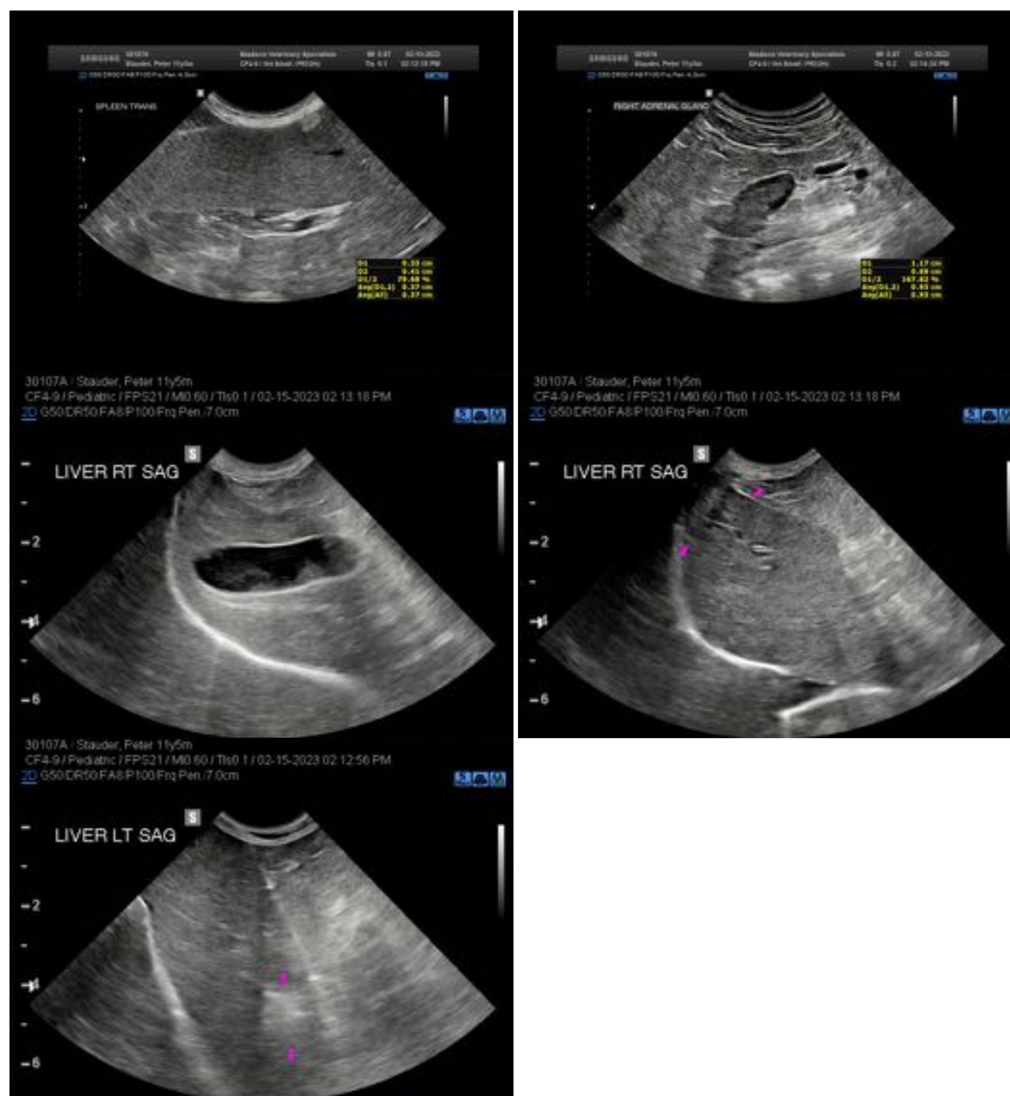

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com