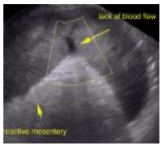
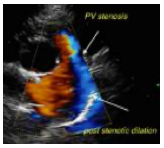
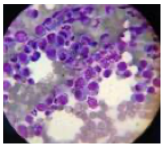
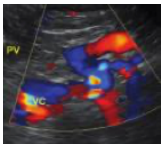
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Yoshi Hoffman

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Neutered Male

AGE
8 years

WEIGHT
14.5 lbs

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

IMAGING PERFORMED BY
Dr. G. Ferrer, DVM

HOSPITAL NAME
Paseos VC

REFERRING VET
Dr. F. Ortiz Vidal, DVM

INVOICE
11672

DATE
9.21.22

PRESENTING CLINICAL SIGNS

History: Presented for abdominal ultrasound. Patient presented on 8/24/22 for dental but was concerned for sporadic coughs. Also, patient has hepatomegaly and pendulous abdomen.

Abnormal PE/Chem/CBC/UA Results: PE 8/24/22 Oral-teeth- severe periodontal dz Cardiovascular - no murmur but beat seems far and no crisp Lab-work 8/24/22 CBC: MPV- 13.9 fL (8.7-13.2) CHEM: GLOB- 4.8 g/dL (2.5-4.5) LIPA- 2780 U/L (200-1800) Radiographs showed 8/24/22 Globoid heart, no evidence of pulmonary edema or lung dz, hepatomegaly and splenomegaly.

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. The region of the trigone and the visible portion of the proximal urethra are normal.

The **prostate** is normal in size (1.16 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 (4.68 cm in length); normal shape and with smooth peripheral contours. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Several cortical cysts are seen. There is no evidence of pyelectasia, nephroliths, or hydroureter.

The **right kidney** is normal size (4.51 cm in length); normal shape and with smooth peripheral contours. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Several cortical cysts are seen. There is no evidence of pyelectasia, nephroliths, or hydroureter.

Adrenal Glands

The **left adrenal gland** is normal size (0.45 cm at cranial pole) (0.53 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 (0.85 cm at cranial pole) (0.44 cm at caudal pole) (1.63 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 (1.34 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 isoechoic 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 moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic to mineralized debris/sludge is observed within the lumen. A small amount of debris is suspended. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The **gastric lumen** is mildly to moderately distended with ingesta. The gastric wall is 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. There is no evidence of an obstructive pattern.

Pancreas

The base and right limb are prominent in size with slightly irregular peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and heterogenous in appearance. The pancreatic duct is not overtly dilated. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

There is no evidence of free fluid. A few prominent mesenteric **lymph nodes** are visualized, the largest measuring 1.37 cm in length. Surrounding mesentery is mildly hyperechoic.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Suspected benign diffuse hepatopathy. Top differentials include idiopathic vacuolar hepatopathy and regenerative nodular hyperplasia. Inflammatory disease is considered unlikely in light of the normal ALT. Infiltrative neoplasia is possible, but also considered unlikely given the sonographic appearance of the liver.

- Gall bladder debris/sludge, non-mucocele

- The pancreatic changes are most consistent with age-related remodeling/fibrosis. Mild chronic pancreatitis is possible, particularly if the patient exhibits clinical signs consistent with this diagnosis.

Secondary Findings

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis, with cortical cysts.

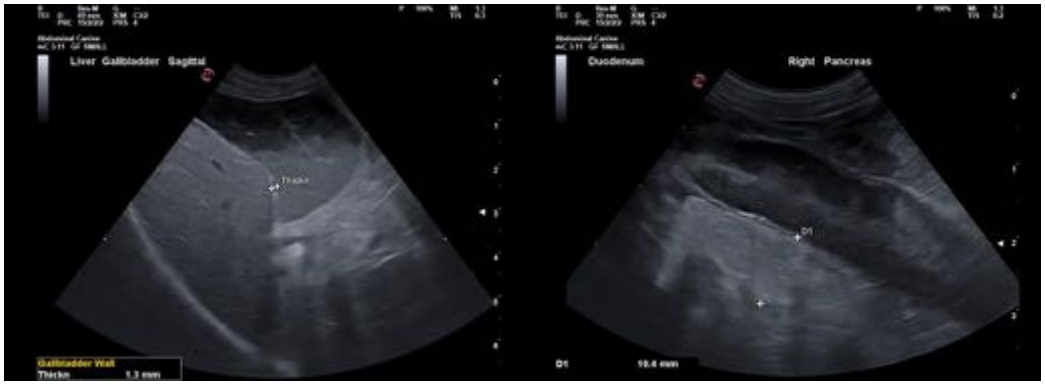
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

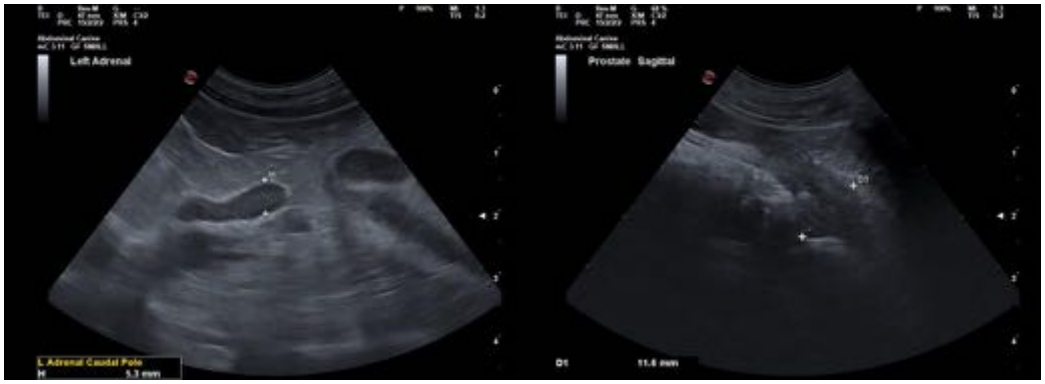
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the hepatic changes, serial monitoring (i.e., every 4-6 months) of the patient's liver values is recommended.

Given the pancreatic changes, consider transitioning to a prescription low-fat diet.

Given the history of coughing and possible globoid heart, consider further cardiac work-up (i.e., echocardiogram, blood pressure, +/- EKG).





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