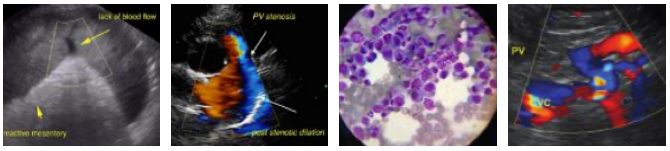
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

**PATIENT**
Shadow Ford

**SPECIES**
Canine

**BREED**
Mini Schnauzer

**SEX**
Male, neutered

**AGE**
12 Yrs.

**WEIGHT**
18.6 lbs.

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

**IMAGING PERFORMED BY**
Dr. Saum Hadi

**HOSPITAL NAME**
Bethany Family Pet Clinic

**REFERRING VET**
Dr. Saum Hadi

**INVOICE**
13505

**DATE**
7/11/22

## PRESENTING CLINICAL SIGNS

History: P presented for a routine dental cleaning at the end of May. Lab work revealed a lymphocytosis. Pathology review noted small to intermediate sized populations. CBC was rechecked weeks after dental and the lymphocytosis was persistent. P has also exhibited weight loss (20.5->18.6 in last 1.5 years). Otherwise, P doing great at home.
Abnormal PE/Chem/CBC/UA Results: Mild lymphocytosis: 6965/uL, Mild neutrophilia with a left shift: 11000/uL with 796 bands per uL. Mild non-regenerative anemia . Mild hyperkalemia (6.3 mEq/L) Mild increase in ALT (137 U/L) Mild increase in ALKP (333 U/L) Historic proteinuria, managed with Enalapril (UPC: 1.4) Negative 4DX, Fecal OP. USF on rest of UA and T4 WNL.

## 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 2 cm, are normal.

The prostate is normal in size (0.47 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.80 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present (0.18 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (5.20 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

### *Adrenal Glands*

The caudal pole of the left adrenal gland is visualized and is normal size (0.36 cm in width) with normal shape, glandular echogenicity and detail. Surrounding vasculature is normal.

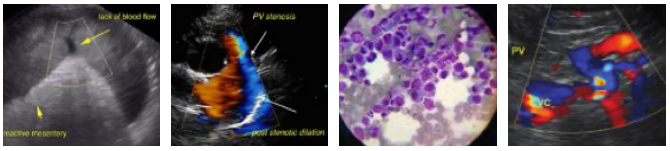
The caudal pole of the right adrenal gland is visualized and is normal size (0.47 cm in width) with normal shape, glandular echogenicity and detail. Surrounding vasculature is normal.

### *Spleen*

The spleen is normal in size (1.65 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 areas are observed throughout the organ. Splenic vasculature is normal.

### *Liver*

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely mottled 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 small amount of mostly gravity-dependent echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.



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### *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 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*

A small amount of free fluid is observed. The abdominal lymph nodes are normal/not visible.

## ULTRASONOGRAPHIC FINDINGS

**Primary Findings:**

- The hepatic parenchymal changes could be consistent with a benign age-related process (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy). Alternatively, infiltrative neoplasia (i.e., lymphoma) is possible, particularly in light of the lymphocytosis.
- The ascites may be secondary to increased vascular permeability, low oncotic pressure or increased hydrostatic pressure. Correlation with the patient's clinical history is recommended.

**Secondary Findings:**

- Minor, age-related renal changes with subtly dystrophic mineralization.
- The hyperechoic areas in the splenic parenchyma trend toward the benign (i.e., myelolipomas) with a low possibility of emerging neoplasia.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider three-view thoracic radiographs to assess for occult neoplasia in the chest.
- A fine needle aspirate of the liver can also be considered if clotting status is appropriate. A 25 gauge needle should be used. Cytologic evaluation of the liver can be beneficial in assessing for round cell neoplasia but it is less useful in evaluating for other hepatopathies.
- Also consider a bone marrow aspirate +/- core biopsy.
- Consultation with a board certified oncologist should also be considered.

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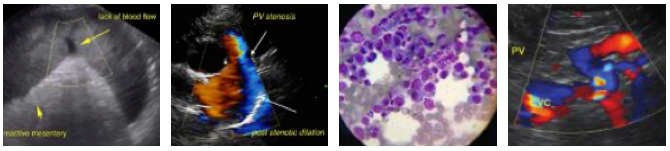

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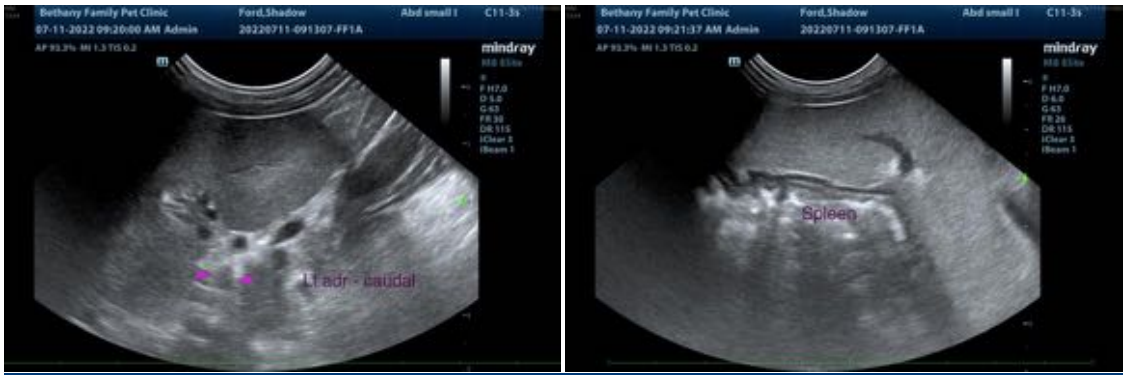



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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