



## PATIENT PRESENTING CLINICAL SIGNS

**Mikey Smith**  
**SPECIES** Canine  
**BREED** Chihuahua  
**SEX** Neutered Male  
**AGE** 15 years  
**WEIGHT** 9.2 lbs

History: P presented for his wellness exam on 1/18/23 and had not been seen since 1/2022 but was noted to have lost approx. 2 lbs. Physical exam was relatively unchanged since last visit with mild progression of his heart murmur (grade 3 at most recent visit). Senior labs revealed a significant inflammatory leukogram with leukocytosis (33.8), neutrophilia (28.12), and monocytosis (1.25). P has a historic thrombocytosis and historically elevated liver values (which were normal on recent labs). Total thyroid levels also decreased to 0.6.  
 Abnormal PE/Chem/CBC/UA Results: see attached

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is mildly to moderately distended with. The wall is normal in thickness with a slightly irregular mucosal surface in the region of the apex. A scant amount of echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The prostate is normal in size (0.95 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 (3.89 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is isoechoic relative to the spleen. Trace pyelectasia is present (0.16 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal in size (4.23 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is isoechoic relative to the spleen. Trace pyelectasia is present (0.12 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter.

### Adrenal Glands

The left adrenal gland is enlarged (0.56 cm at cranial pole) (0.82 cm at caudal pole) with a slightly irregular shape. The parenchyma is mildly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is enlarged (0.51 cm at cranial pole) (0.67 cm at caudal pole) with a slightly irregular shape. The parenchyma is mildly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

### Spleen

The spleen is normal in size (1.08 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 0.39 cm ill-defined hypoechoic nodule is observed at the caudomedial aspect. Splenic vasculature is normal.

### Liver

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and heterogenous in appearance, with a few ill-defined hyperechoic nodules/areas. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A scant amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

## INTERPRETED BY

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## IMAGING PERFORMED BY

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## REFERRING VET

Lauren Eyrich

## INVOICE

12196

## DATE

2.9.23

### ***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. There is no evidence of an obstructive pattern.

### ***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic 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. The mesentery effacing the serosal surface is mildly hyperechoic.

### ***Free Abdomen***

There is no obvious evidence free fluid. A 0.83 cm lymph node is observed in the right cranial quadrant.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The pancreatic changes are suggestive of mild chronic +/- active pancreatitis with suspected age-related remodeling.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

### **Secondary Findings**

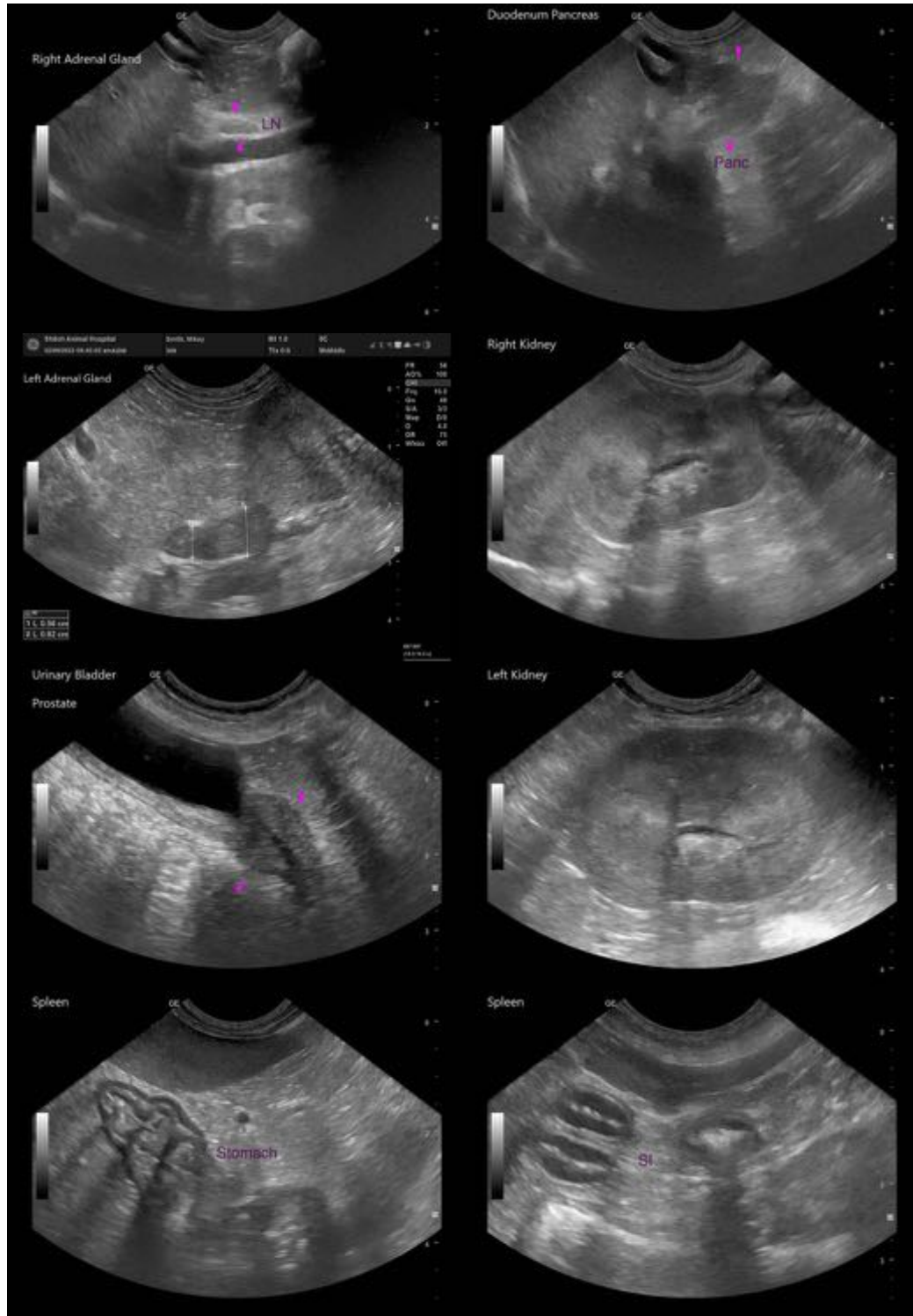
- Bilateral chronic age-related renal changes. The bilateral pyelectasia may be secondary to age-related remodeling, pyelonephritis or some combination thereof.
- The bilateral adrenomegaly is most consistent with hyperplastic change.
- The hypoechoic splenic nodule trends toward the benign (i.e., focus of lymphoid hyperplasia or similar) with a lower possibility of infiltrative neoplasia.
- The prominent lymph node in the right cranial quadrant is likely reactive

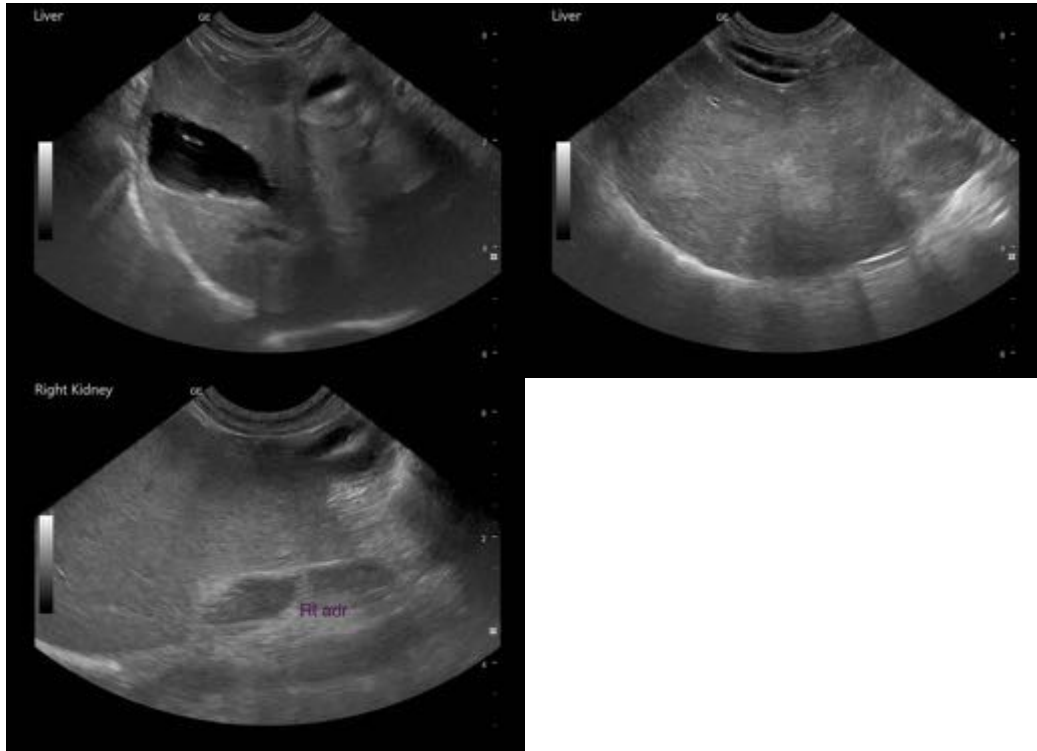
\*An obvious cause for the patient's weight loss and bloodwork changes is not identified in this study. Considerations include inflammatory or infectious disease, infiltrative neoplasia, other.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three-view thoracic radiographs are recommended to assess for occult disease in the chest.
- Also consider further testing for infectious disease (i.e., tick-borne).
- A urine culture and sensitivity should also be considered to evaluate for a urinary tract infection.
- A cPLI should also be considered to assess for pancreatitis.

- Given the presence of a heart murmur, consider an echocardiogram +/- ECG and baseline blood pressure measurement.





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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