
**PATIENT PRESENTING CLINICAL SIGNS**

Porter Ptacek

History: Porter was at the E-clinic about a week ago for increased respiratory rate. Temp at that time 103.1. Thoracic rads were NSF. ALP = 1300 Sent with pain reliever, improved. Mild anemia 33%. Presented today in lateral recumbency T= 104.9 Abdominal pain noted in area of kidneys. Rectal = prostate just barely palpable but does not seem painful.

**SPECIES**

Canine

**BREED**

Lab Retriever

Abnormal PE/Chem/CBC/UA Results: ALT was 99 and ALP 1300 ALT now 161 and ALP 1561. WBC = 5300. HCT 45 today. Full labs are pending, along with fecal, UA and 4DX.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**SEX Urinary System**

Intact Male

The urinary bladder, trigone, and pelvic urethra are 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 are normal.

**AGE**

11.5

Only the cranial portion of the prostate is visualized due to its pelvic location. In the visualized portion, the prostate is subjectively enlarged. The parenchyma is hyperechoic relative to surrounding omental fat and mildly heterogenous in appearance. The prostatic urethra is not overtly dilated.

**WEIGHT**

95 lbs

The left kidney is normal size (7.93 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

**INTERPRETED BY**

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

The right kidney is normal size (8.74 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

**IMAGING PERFORMED BY**

Velasco

**Adrenal Glands**

The left adrenal gland is enlarged (1.03 cm at cranial pole) (0.34 cm at caudal pole); with a slightly irregular shape. The parenchyma is subtly heterogenous. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Bethany Family PC

The caudal pole of the right adrenal gland is visualized and is borderline enlarged (0.86 cm in width); with a normal shape, glandular echogenicity and detail. Surrounding vasculature appears normal.

**Spleen**
**REFERRING VET**

Dr. Velasco

The spleen is subjectively normal in size (1.97 cm in width at the level of the hilus) with slightly undulating peripheral contours. The parenchyma is diffusely mottled in appearance. Several nodules are observed throughout the organ, the largest measuring 2.54 cm. At least one of the nodules has the appearance of a "target" lesion. Splenic vasculature appears normal with no evidence of thrombosis.

**INVOICE**

11031

**Liver**

The liver is subjectively prominent in size with slightly irregular peripheral contours. The parenchyma is iso relative to the spleen and diffusely mottled and heterogenous in appearance. Numerous, ill-defined,

**DATE**

6/7/22

hypoechoic to heterogenous nodules are observed throughout the organ, the largest measuring 2.54 cm in the left lateral lobe. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is mildly to moderately distended. The wall is thickened (up to 0.55 cm) with a double-walled effect. The mucosal layer is thickened and hyperechoic. A moderate amount of aggregated, partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. 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***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The diffuse hepatic parenchymal changes could be consistent with infiltrative disease (i.e., round cell neoplasia), an inflammatory hepatopathy, hepatotoxicosis (i.e., copper), or other hepatopathy. A neoplastic process is favored.
- The splenic parenchymal changes are also concerning for infiltrative neoplasia, particularly the “target” lesion. Other differentials include multifocal inflammatory disease, extramedullary hematopoiesis, lymphoid hyperplasia, and antigenic stimulation.
- The gall bladder wall changes could be consistent with cholecystitis, low oncotic pressure, autoimmune disease, increased hydrostatic pressure (i.e., right-sided congestive heart failure), or anaphylaxis (less likely).

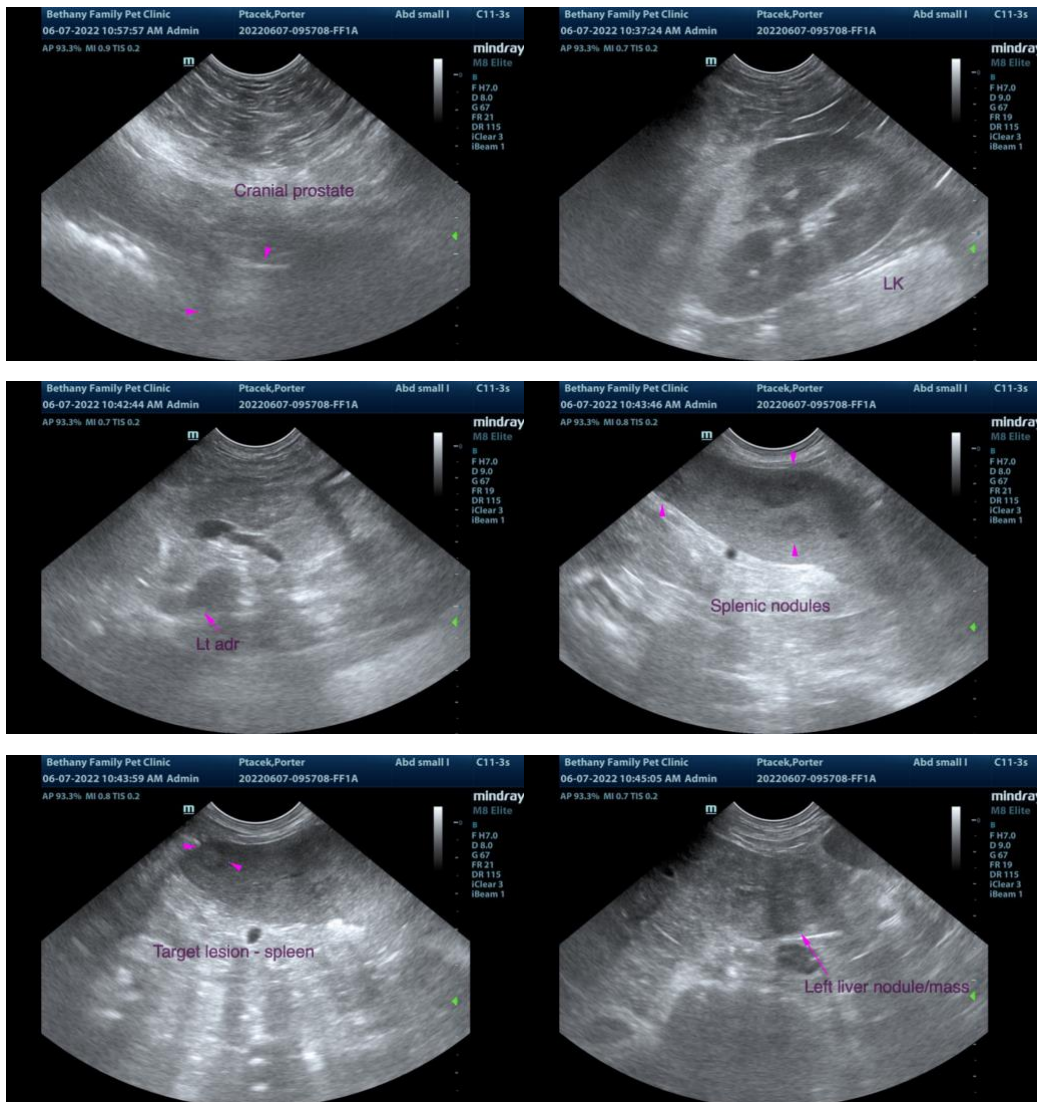
### **Secondary Findings**

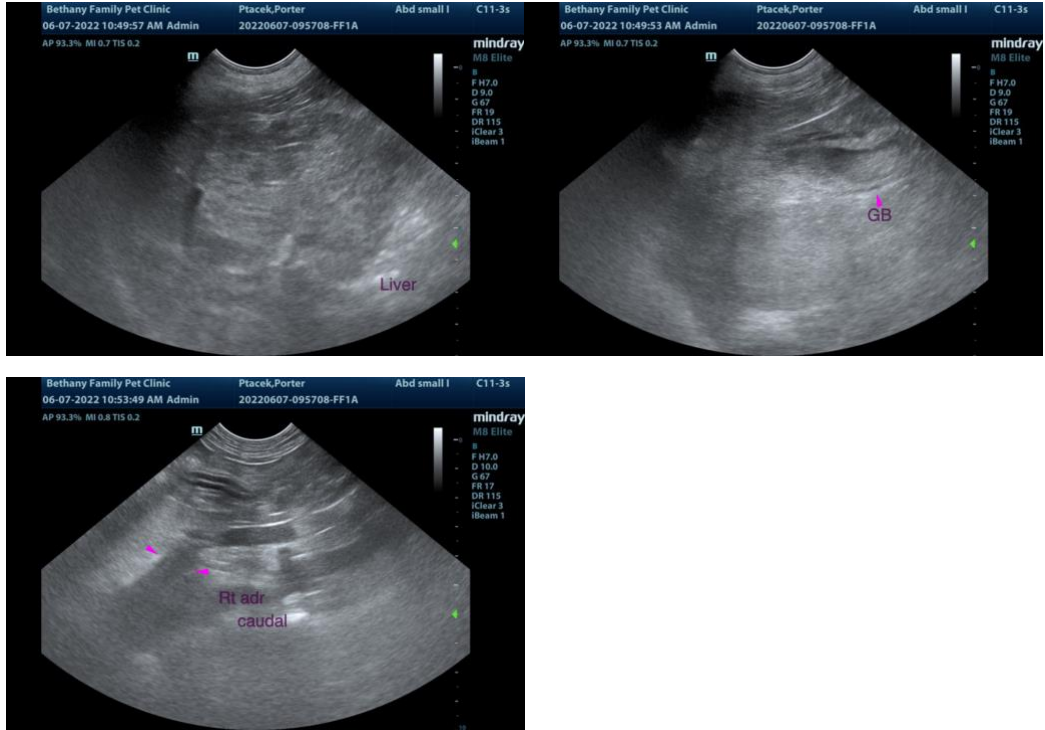
- The prostate changes are most consistent with benign prostatic hyperplasia. Bacterial prostatitis is also a differential but considered unlikely in the absence of lower urinary tract signs.
- Mild, bilateral, chronic, renal changes

- Mild, bilateral adrenomegaly, most consistent with hyperplastic change. However, emerging neoplasia cannot be completely excluded.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Fine-needle aspirates of the splenic and hepatic nodules (i.e., left lateral lobe) are recommended if clotting status is appropriate. Twenty-five gauge-needles should be used. If cytology results are inconclusive, surgical biopsies may be necessary to get a definitive diagnosis.
- Given the fever, consider a urine culture and sensitivity to assess for occult pyelonephritis/bacterial prostatitis.





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, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
info@SonoPath.com