



PATIENT

Ava Carter

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

Intact Female

AGE

2 years, 11 mos

WEIGHT

36. kg

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Wendy Turner

HOSPITAL NAME

Pennsauken
AH&Urgent Care

REFERRING VET

Wendy Turner

INVOICE

13875

DATE

7.28.23

PRESENTING CLINICAL SIGNS

History: Sedated scan. Recent history of ataxia. Concern with liver shunt.
Abnormal PE/Chem/CBC/UA Results: Hx of elevated liver values (ALT/ALP), low BUN

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of echogenic-to-mineralized debris, +/- tiny calculi are observed within the lumen. The region of the trigone is normal.

The left kidney is normal in size (4.30 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. A few, small, nonobstructive foci of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.97 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. Several, small, nonobstructive foci of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size (0.32 cm at cranial pole) (0.30 cm at caudal pole) (0.88 cm in length) with a normal shape and 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 in normal size (0.53 cm at cranial pole) (0.46 cm at caudal pole) (0.91 cm in length) with a normal shape and 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 (1.04 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 small in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogenous in appearance. No focal lesions are observed. Intrahepatic biliary tracts are normal.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. 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-to-moderately 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 segmentally dilated with chyme. The small intestinal wall is normal in thickness 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.



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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. One-to-two medial iliac lymph nodes are visualized (the larger measuring 0.79 x 0.41 cm). The nodes are normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Findings

- Suspected microhepatica. Differentials include microvascular dysplasia/portal hypoplasia, congenital portosystemic shunt, primary hepatopathy, normal variant, other. Unfortunately, the presence of a congenital portosystemic shunt cannot be determined from this study, in part due to the gastric distention (which obscures visualization of the portal vein).
- Bilateral nonobstructive nephrolithiasis
- Urinary bladder sand +/- tiny calculi

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the patient's clinical history and sonographic changes, pre-and postprandial serum bile acids, as well as a blood ammonia level are recommended. If values are elevated, a contrast CT scan would be useful in determining the presence of a shunt. If a shunt is not identified, a liver biopsy may be necessary to get a definitive diagnosis.
- Regarding the possible cystic calculi, consider abdominal radiographs or a recheck ultrasound of the urinary bladder, when it is more distended.





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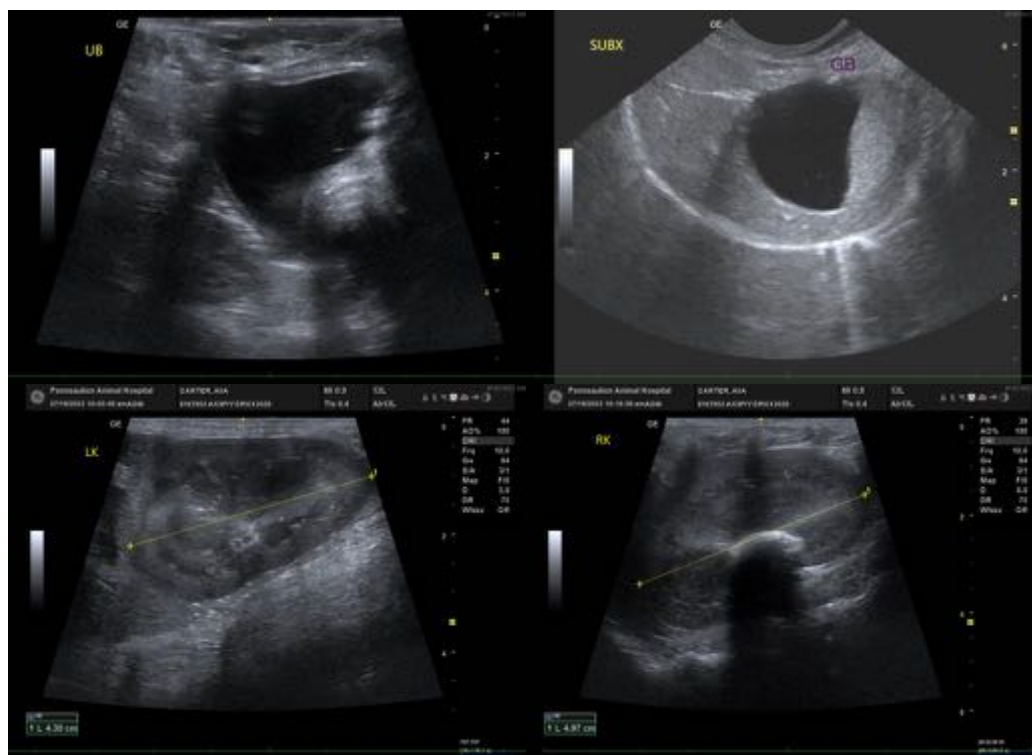
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com