

**DATE PRESENTING CLINICAL SIGNS**

12/6/21 History: ALKP elevation, ALT high but came down to normal.

PATIENT

Daisuki Diehl

Current Medications: hydrolyzed protein diet.

Lab Results: 7/21/21: CBC/Diff/IOF/Electrolytes: ALKP 1373 (23-212) ALT 136 (10-125). 11/30/21: Cbc/chem

Inhouse: ALKP 330, ALT 56, HCT 55.18. UA: Yellow/clear, free catch, USG >1.050, pH 6, rare epi cells.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Canine

BREED

Shih Tzu

SEX

Male, neutered

AGE

10/10/15

WEIGHT

15 lbs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is mildly to moderately distended. The wall is normal in thickness with a smooth mucosal surface. Numerous cystic calculi are visualized. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.57 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 (4.09 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. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal size (4.38 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A few small, non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

INTERPRETED BY

Andrea Nicastro, DVM,
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(Small Animal Internal
Medicine)

Adrenal Glands

The left adrenal gland is normal size (0.41 cm at cranial pole) (0.48 cm at caudal pole) (1.53 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.

IMAGING PERFORMED BY

Andi Parkinson RDMS

The right adrenal gland is normal size (0.71 cm at cranial pole) (0.50 cm at caudal pole) (1.57 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.

HOSPITAL NAME

Banfiel Pet Hospital of
White Marsh

Spleen

The spleen is normal in size (1.35 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.

REFERRING VET

Dr. Gutwillig

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No

INVOICE

12650

pathological hepatic lymphadenopathy observed. The portal vein: caudal vena cava ratio is approximately 1:1 making a congenital extrahepatic portosystemic shunt unlikely given the chronic liver enzyme elevations. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of echogenic debris is observed within the lumen, some of which is gravity dependent and some of which is suspended. 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 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 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

- Cystic calculi.
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- Right non-obstructive nephrolithiasis. Bilateral age-related renal changes with left dystrophic mineralization.
- Gallbladder debris. Differentials include cholestasis, fasting, early mucocele formation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider pre- and post-prandial serum bile acids to assess hepatic function.
- Given the gallbladder changes, consider a repeat ultrasound in 2-3 weeks, preferably 2 hours post small meal to reassess the gallbladder. If changes are similar, consider initiation of Ursodiol therapy. Alternatively, Ursodiol therapy can be initiated at this time with a repeat ultrasound in 4-6 weeks to reassess the gallbladder.
- A cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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