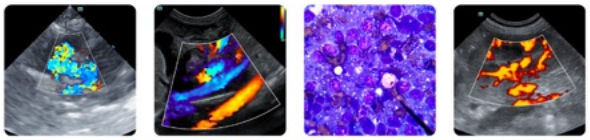


PATIENT

Sophie Smucker

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed female

AGE

12 years

WEIGHT

15.5 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Miller

INVOICE

69129

DATE

11/26/25

PRESENTING CLINICAL SIGNS

History: Patient presented for evaluation of chronically elevated liver enzymes. First detected during work up for dental procedure. Recheck bloodwork following COHAT showed persistent elevation of liver enzymes. Recommended abdominal U/S as next step.
Abnormal PE/Chem/CBC/UA Results: ALT 454 (10-125); [previously 331 in May 2025] ALP 349 (23-212); [previously 156 in May 2025] Bile Acids (June 2025) Pre: 2.6 (0-14.9) Post: 22.2 (0-29.9)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The bladder lumen is normally distended, and the wall of the urinary bladder appears thin and smooth. The urine is anechoic. Normal appearance of the proximal urethra and vesicoureteral junction. There are no calculi, and no evidence of inflammatory or neoplastic changes.

Both kidneys: The cortical is isoechogenic compared to liver parenchyma. The corticomedullary ratio is normal and the corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths or hydronephrosis. Doppler color shows normal pattern. The left kidney is normal in shape and size: 4.19 x 2.43 cm, and the thickness of the cortex is 0.44 cm, in the sagittal plane. The right kidney is normal in shape and size: 4.20 x 2.33 cm, and the thickness of the cortex is 0.39 cm, in the sagittal plane.

Adrenal Glands

Both adrenal glands show normal shape and echogenicity. The left adrenal gland measures 0.50 cm at the cranial pole and 0.44 cm at the caudal pole. The right adrenal gland measures 0.63 cm at the cranial pole and 0.55 cm at the caudal pole. Two tiny mineral foci.

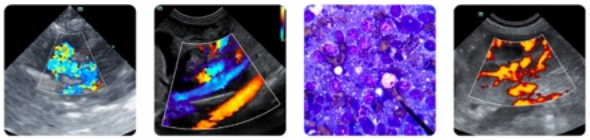
Spleen

Splenic thickness is 1.44 cm. The parenchyma demonstrates normal echogenicity with fine heterogeneous echotexture, abundant hyperechoic areas, and small mineral foci. The splenic capsule is smooth and regular.

Liver

The liver is subjectively increased in size, with rounded edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder lumen is normally distended. The wall is 1.16 mm and appears hyperechoic. The contents are primarily anechoic. No evident dilation of the cystic duct or common bile duct is observed.



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Gastrointestinal

The stomach is empty and folded, with mural thickness of 2.75 mm and preserved wall layering. Duodenum: 4.06 mm.

Jejunum: 3.09 mm. Ileum: 2.06 mm. Normal wall layering throughout. The ileocecal junction is not visualized. No signs of obstruction, ileus, or foreign material are identified.

Colon: wall thickness 0.87 mm, containing formed feces.

Pancreas

Pancreatic thickness is 0.86 cm. Pancreatic parenchyma is isoechoic to the adjacent omental fat. No signs of active inflammation or neoplastic disease are evident.

Peritoneal Cavity

No abdominal effusion or peritonitis is observed. Cranial mesenteric lymph nodes are not visualized, but the surrounding regions appeared unremarkable. The iliac trifurcation is normal.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS

- Mild hepatomegaly with otherwise normal parenchymal echotexture.

SECONDARY FINDINGS

- Hyperechoic gallbladder wall (1.16 mm) without pathologic thickening.
- Mildly heterogeneous splenic parenchyma with hyperechoic regions and small mineral foci.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Abdominal ultrasound reveals mild hepatomegaly with otherwise normal hepatic echotexture, rounded margins, and no evidence of nodules, masses, infiltrative disease, or biliary obstruction. The gallbladder wall measures 1.16 mm and appears hyperechoic, but is not pathologically thickened, and the gallbladder contains anechoic bile without sludge.

The mildly heterogeneous splenic parenchyma with multiple hyperechoic regions and small mineral foci represents a very common incidental aging change, particularly well-documented in Miniature Schnauzers. These foci typically correspond to benign histologic findings such as hemosiderosis, fibrosis, nodular hyperplasia, or dystrophic mineralization, and are not associated with splenic neoplasia or clinical disease.

Overall, the imaging findings do not identify a structural cause for the patient's elevated liver enzymes. The most likely explanations include:

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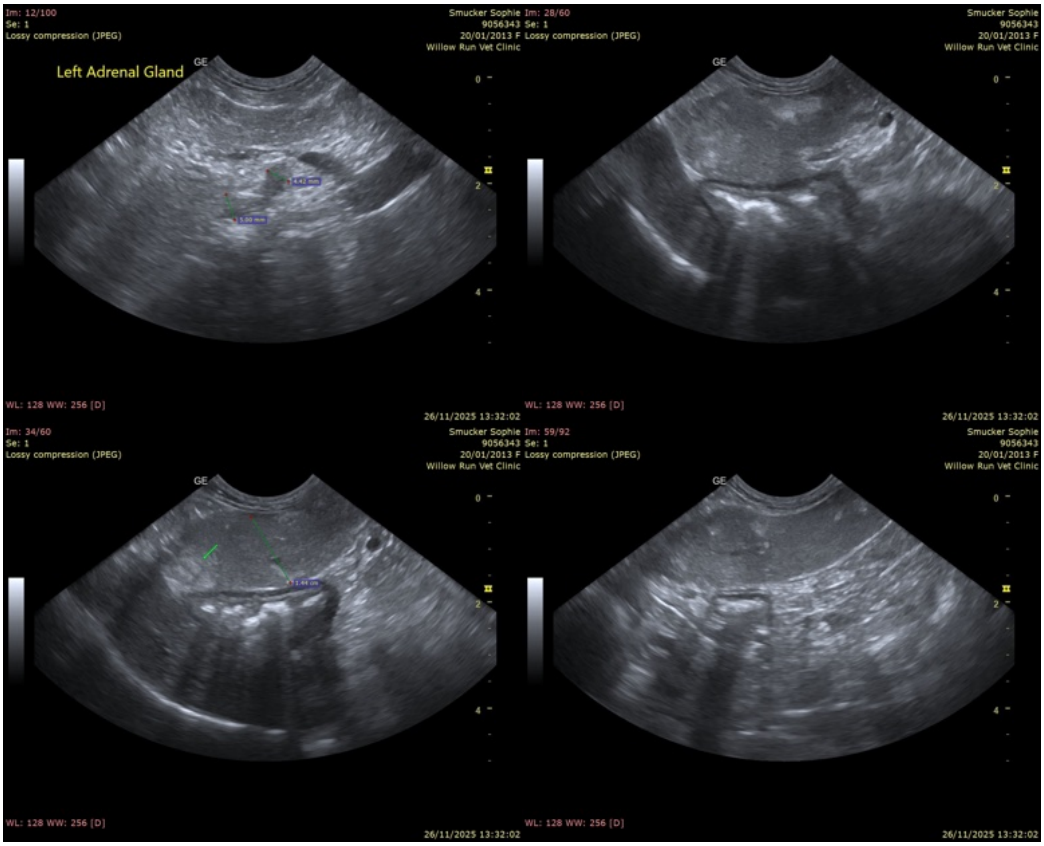
- Chronic hepatocellular enzyme induction,
- Early vacuolar hepatopathy/ early metabolic hepatopathy.

Recommendations

- Although no structural hepatobiliary abnormalities are identified, the progressive increase in ALT and ALP makes the use of hepatoprotective supplements (such as SAMe with silybin) a reasonable supportive option. These agents are safe and may help stabilize liver enzyme activity despite the absence of ultrasonographic lesions.
- Monitor liver enzymes.
- Liver biopsy or FNA should be considered only if ALT/ALP continue to rise significantly or if new clinical signs develop.



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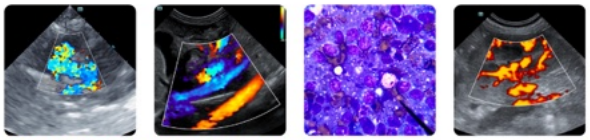

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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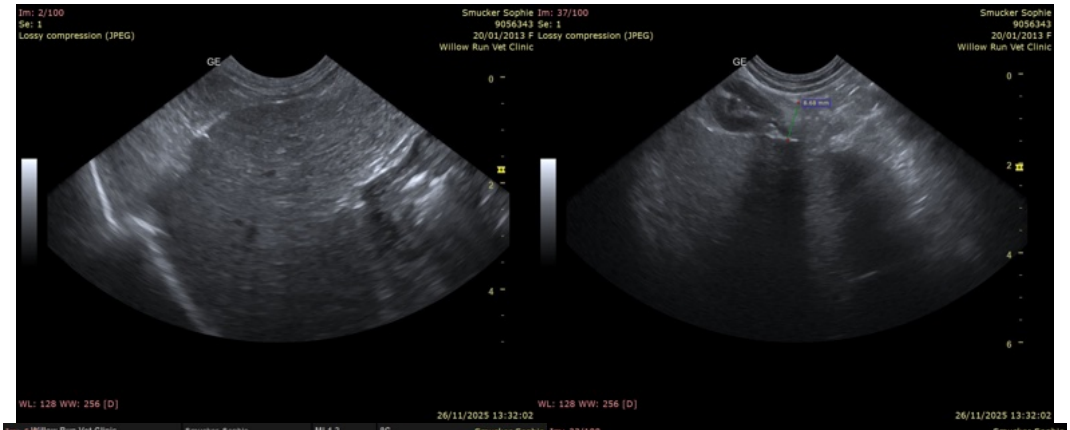

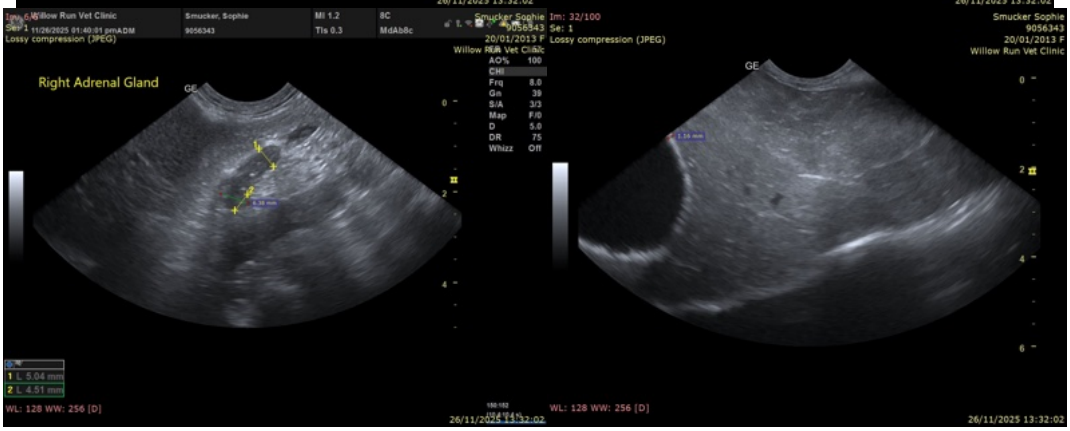

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com