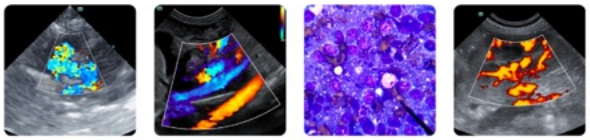


PATIENT

Buddy Goff

SPECIES

Canine

BREED

Maltese Mix

SEX

Neutered male

AGE

12 years

WEIGHT

16.3 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Julie Kang

HOSPITAL NAME

Sabino VC

REFERRING VET

Dr. Kang

INVOICE

70888

DATE

1/22/26

PRESENTING CLINICAL SIGNS

- Presenting for AUS to investigate ALT elevation trend.
- P incidentally developed vomiting and diarrhea yesterday, was treated with Cerenia injection yesterday for symptomatic support.
- 1/10/2026: CBC - WNL. NSAID Chem - hyperproteinemia (7.8 <-- 7.5 in 7/2025 <-- 7.4/WNL in 1/2025), mild ALT elevation (162 <-- 124 in 7/2025 <-- 112/WNL in 1/2025), IRIS Stage 1. UA - 1.035, pH 7.5, 2+ proteinuria.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly underdistended, which may result in overestimation of wall thickness. The bladder wall appears smooth. The urine is anechoic. The bladder neck and proximal urethra appear normal. No uroliths are identified, and there is no sonographic evidence of inflammatory or neoplastic bladder wall changes.

The left kidney is normal in shape and size (4.61×2.46 cm). Cortical thickness measures 0.37 cm in the sagittal plane. The right kidney is normal in shape and size (4.81×2.43 cm). Cortical thickness measures 0.30 cm in the sagittal plane. In both kidneys, cortical echogenicity is normal. The corticomedullary ratio and corticomedullary definition are preserved. Color Doppler evaluation demonstrates a normal perfusion pattern. Within the pyelocaliceal regions of both kidneys, multiple punctate hyperechoic foci are identified (approximately 1–1.5 mm in the left kidney and up to 2.92 mm in the right kidney), without acoustic shadowing, consistent with papillary mineralization or early microlithiasis, with no evidence of urinary obstruction.

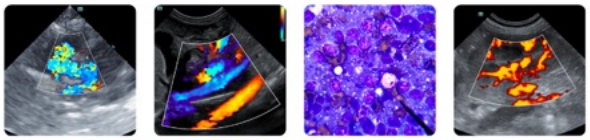
Adrenal Glands

The left adrenal gland is normal in shape and echogenicity, measuring 0.49 cm at both the cranial and caudal poles.

The right adrenal gland is markedly abnormal, having lost its normal shape and architecture, and is replaced by a heterogeneous mass measuring approximately 2.53×1.82 cm. The mass is in close proximity to the caudal vena cava and contacts the vessel wall at some points; however, there is no sonographic evidence of caval thrombosis or vascular invasion.

Spleen

Splenic thickness is 1.07 cm. At the dorsal extremity of the spleen, a heterogeneous mass measuring approximately 2.80×2.14 cm is identified. The lesion extends beyond the splenic capsule and demonstrates internal vascularization. The remainder of the splenic capsule appears smooth and regular.



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Liver

The liver is subjectively enlarged, with rounded margins. The hepatic parenchyma is heterogeneous, containing multiple hypoechoic lesions of variable size and shape, distributed throughout all hepatic lobes. Some lesions measure up to approximately 4.5×3.0 cm, while others are smaller.

The gallbladder is normally distended. The wall is thin. Luminal contents are primarily anechoic with a small amount of biliary sludge. No dilation of the cystic duct or common bile duct is identified.

Gastrointestinal

The stomach is empty and folded, with a predominantly liquid luminal pattern. Gastric wall thickness measures 2.04 mm, with preserved wall layering. The pylorus measures 4.88 mm. The duodenum measures 3.73 mm. The jejunum measures 3.14–3.54 mm, with preserved wall layering. No sonographic evidence of gastrointestinal inflammation, ileus, or foreign material is identified.

The colon is empty in the transverse segment, with a wall thickness of approximately 1.44 mm and preserved layering. The descending colon contains formed feces.

Pancreas

The visualized pancreatic regions show no sonographic evidence of inflammation.

Peritoneal Cavity

No abdominal effusion or evidence of peritonitis is observed. Abdominal lymph nodes are not visualized; surrounding regions appear unremarkable. The iliac trifurcation appears normal.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS

- Large right adrenal mass (2.53×1.82 cm).
- Multifocal hypoechoic hepatic lesions with hepatomegaly.
- Vascularized splenic mass extending beyond the splenic capsule (2.80×2.14 cm).

SECONDARY FINDINGS

- Bilateral renal papillary mineralization / early microlithiasis (incidental).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hepatic changes, characterized by hepatomegaly and a diffusely heterogeneous parenchyma with multiple hypoechoic areas of variable size and shape, are most consistent with a chronic, non-neoplastic hepatopathy, such as nodular hyperplasia or vacuolar hepatocellular change, particularly in the context of a slow, progressive ALT elevation over time. The diffuse distribution, lack of discrete mass effect or target lesions, and chronic biochemical trend make primary hepatic neoplasia or metastatic disease less likely based on ultrasonographic appearance alone.

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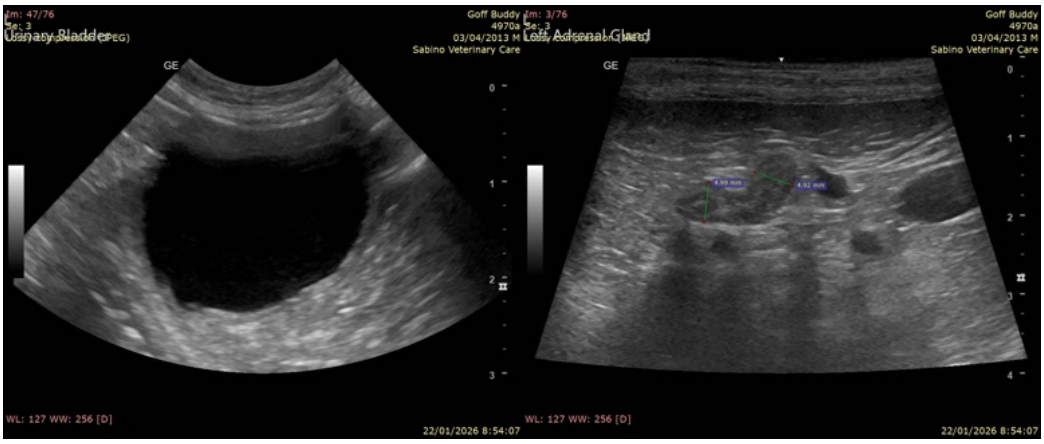
In contrast, the right adrenal gland is replaced by a large mass with complete loss of normal architecture, a finding that is highly consistent with adrenal neoplasia. No sonographic evidence of caudal vena cava invasion or thrombosis are present at this time.

The appearance of the splenic lesion is not characteristic of benign nodular hyperplasia or commonly encountered incidental splenic nodules, raising legitimate concern for splenic neoplasia, either primary or secondary.

Taken together, the ultrasound findings are most consistent with a scenario in which a chronic benign hepatopathy coexists with a primary adrenal neoplasm and a potentially neoplastic splenic mass. The gastrointestinal tract and kidneys do not demonstrate changes that would account for the recent vomiting and diarrhea, which may be secondary to systemic illness rather than primary gastrointestinal pathology.

Recommendations

- Further characterization of the right adrenal mass is recommended, with priority given to determining functional status. Endocrine testing and continued blood pressure monitoring are advised, as functional adrenal disease would significantly influence case management and prognosis. Ultrasound-guided sampling of the adrenal mass is not recommended at this stage due to limited diagnostic yield and procedural risk.
- The splenic mass represents another clinically relevant finding and options include careful monitoring with repeat imaging and diagnostic sampling if clinically indicated and feasible.
- A hepatic cytology sample obtained from one of the more nodular-appearing areas may help exclude overt neoplastic disease; however, a definitive diagnosis of the underlying hepatopathy would be unlikely based on cytology alone. Continued monitoring of liver enzymes and consideration of supportive hepatic management may be appropriate.



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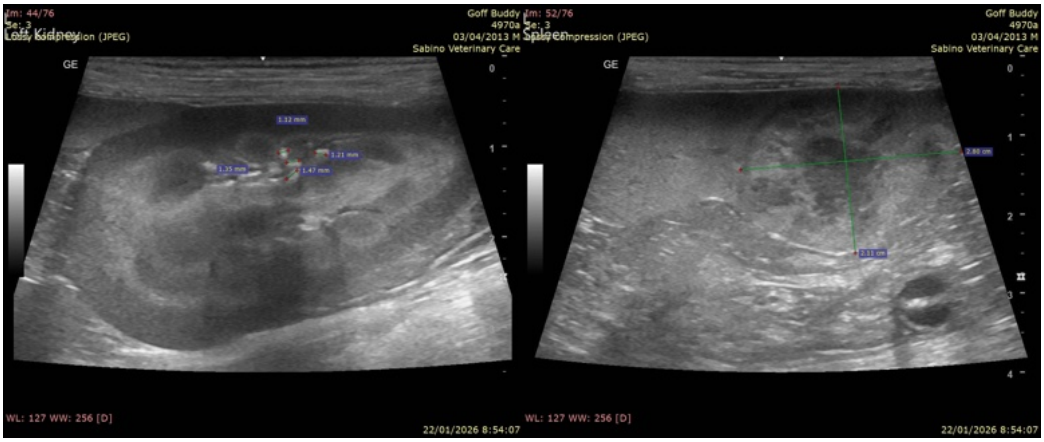

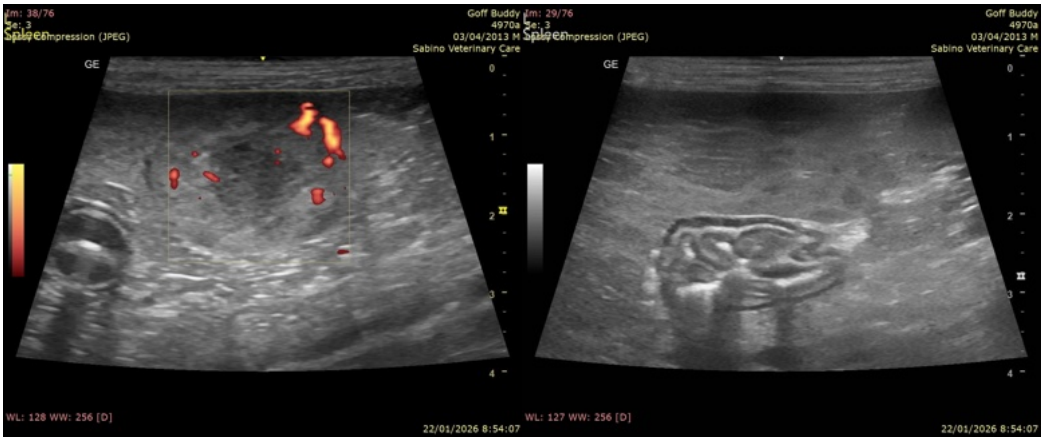

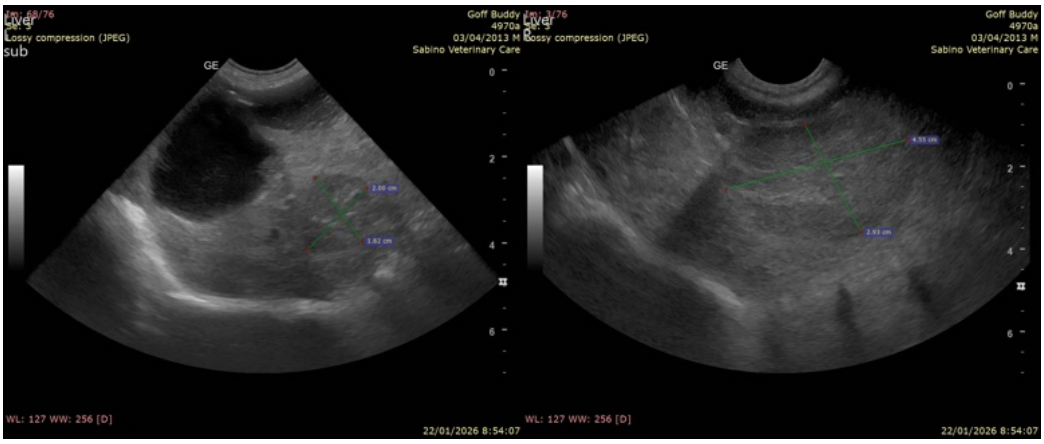

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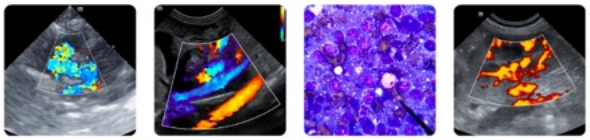

Clinical Sonography & Telecytology
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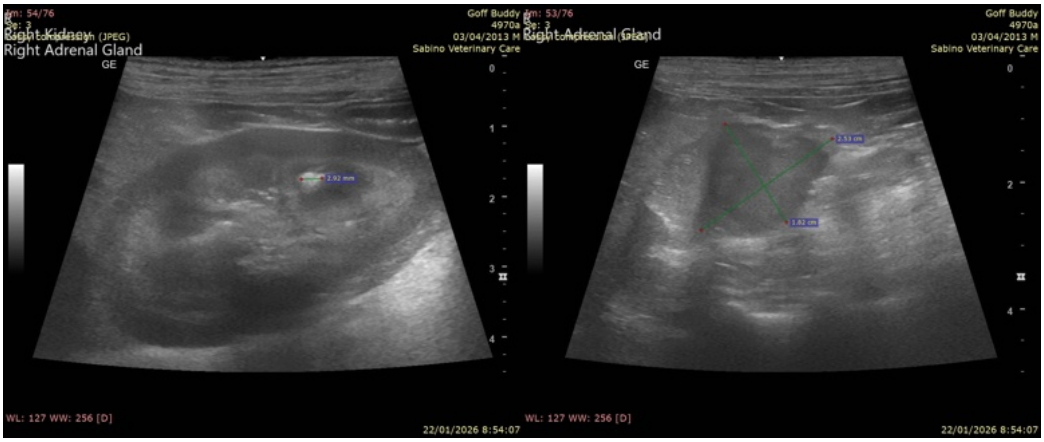

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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