



PATIENT	PRESENTING CLINICAL SIGNS
Cooper Fenstermaker	History of increasing ALP over time. Ultrasound to assess liver.
SPECIES	Current medications/supplements include Cytopoint, Cosequin, fish oil supplement, Sentinel.
Canine	Abnormal PE/Chem/CBC/UA Results: 8/8/2022 cbc/chem/HWT/UA ALP high 692 HWT negative USG 1.023 quiet sediment remainder cbc/chem WNL 12/1/2022 liver chem ALP high a 891 remaining values normal
BREED	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Boxer Mix	Urinary System
SEX	The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 5 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
MN	
AGE	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.6 cm in length. The right kidney measured 6.6 cm in length.
8yr	
WEIGHT	The area of the aortic trifurcation was free of pathology.
48.8	The area of the residual prostate appeared normal and free of pathology measuring 1.0 cm in diameter.
INTERPRETED BY	Adrenal Glands
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.52 cm width at the caudal pole and 0.44 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.79 cm width at the caudal pole and 0.88 cm width at the cranial pole.
IMAGING PERFORMED BY	Spleen
Lucas Budden	The spleen exhibited normal size and a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. A solitary well demarcated uniform hyperechoic perihilar nodule without evidence of associated medial capsule distortion was present measuring 1.2 cm in diameter. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.
HOSPITAL NAME	Liver/Gallbladder
Frontier Veterinary Hospital	The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild congealed non-organized hyperechoic debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.
REFERRING VET	Gastrointestinal
Lucas Budden	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.
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DATE	
01/08/2023	



PATIENT
Cooper Fenstermaker

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

SPECIES

Pancreas

Canine

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

BREED

Free Abdomen

Boxer Mix

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

SEX

Focal, mildly prominent to enlarged mid to ventral abdominal mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 3.4 cm x 0.5 cm.

MN

AGE

ULTRASONOGRAPHIC FINDINGS

8yr

- Benign hepatopathy
- Mild congealed gallbladder debris-not consistent with mucocele criteria
- Benign splenic perihilar nodule-consistent with benign myelolipoma
- Intermittent minor benign/reactive mid abdominal mesenteric lymph nodes-considered incidental

WEIGHT

48.8

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

The overall liver was nonspecific with considerations including vacuolar hepatopathy, cholangiohepatitis possible without evidence of neoplastic criteria. Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology could be considered primarily to assess for inflammatory cells or antigenic stimulation. Hepatosupportive medications such as Denamarin and Ursodiol may prove beneficial.

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

No overt suspicion of primary adrenal disease given lack of reported clinical signs and normal adrenal presentation.

Lucas Budden

A novel protein or hydrolyzed diet trial may be considered if evidence of hepatic antigenic stimulation is present on cytology.

HOSPITAL NAME

Frontier Veterinary
Hospital

REFERRING VET

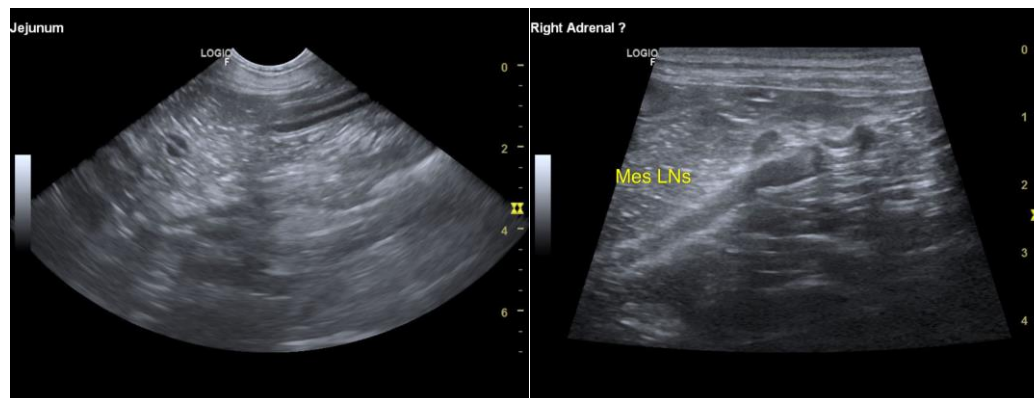
Lucas Budden

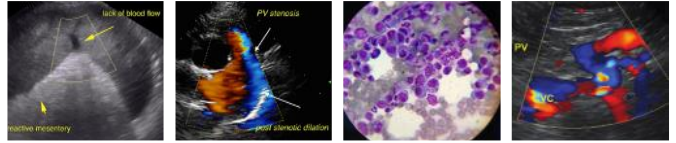
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PATIENT

Cooper Fenstermaker

SPECIES

Canine

BREED

Boxer Mix

SEX

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AGE

8yr

WEIGHT

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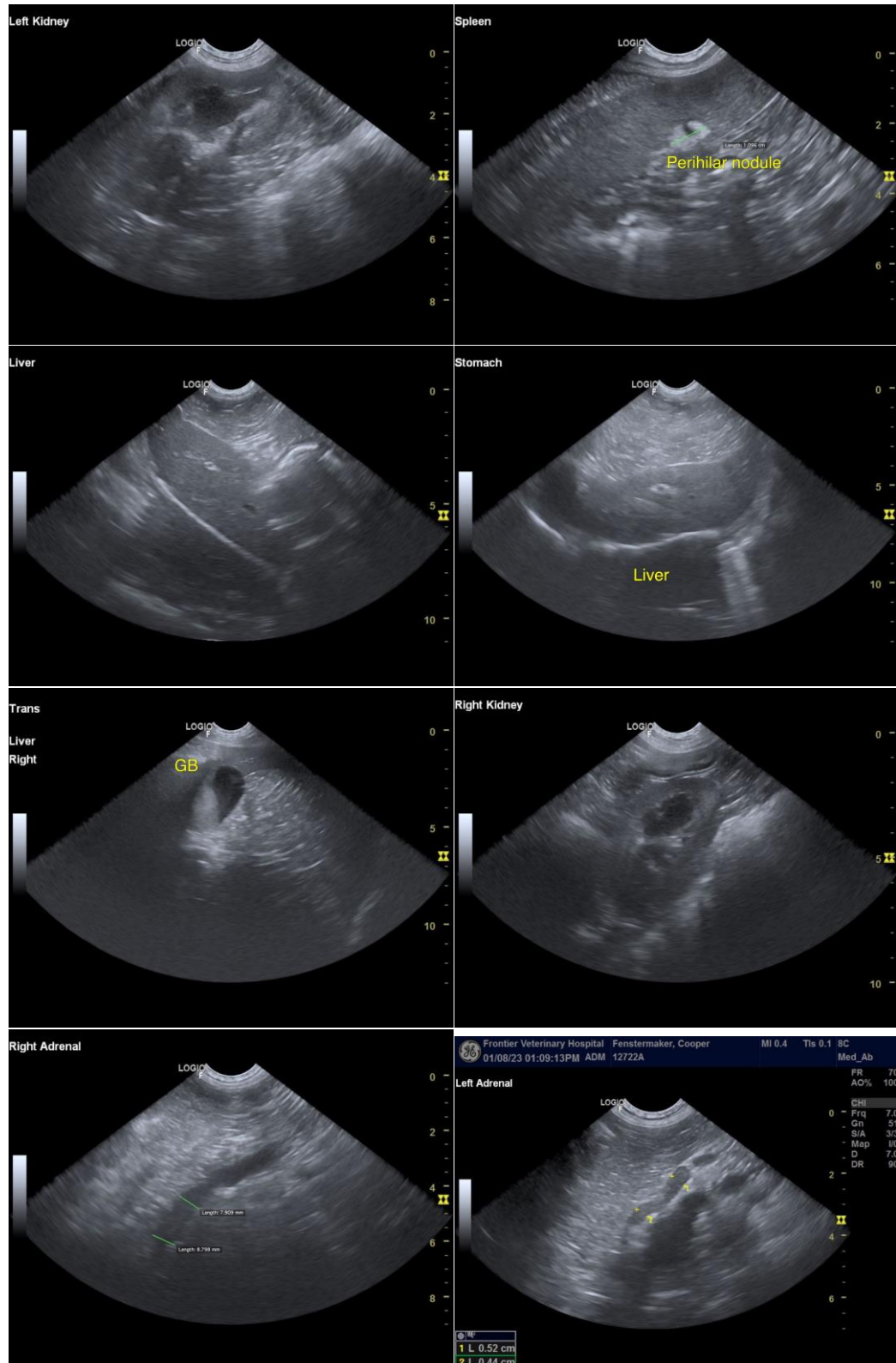
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The information and recommendations provided are based on the images presented by the referring



PATIENT

Cooper Fenstermaker

veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
mac.daniel@sonopath.com

BREED

Boxer Mix

SEX

MN

AGE

8yr

WEIGHT

48.8

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