



PATIENT

Nitro Extan

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

9yr

WEIGHT

6.2lb

PRESENTING CLINICAL SIGNS

- BCS 5/9
- Ravenous appetite, weight loss, muscle loss, hepatomegaly
- Hx of elevated LE's
- Cries out in pain randomly
- Current Med: Zypatt powder (Sedation: Ace, DKT), VitK inj prior to liver FNA
- Abnormal PE/Chem/CBC/UA Results: ALT 582; GGT 5; Pancreatic lipase 20.5. For FNA: PLT 235; HCT 23.85; PT: 19.5; PTT: 38.1

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no evidence of urine/lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

Normal size and margination was 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. A discreet hyperechoic corticomedullary band, consistent with a medullary rim sign, was present. This is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated with interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding. The left kidney measured 3.9 cm in length. The right kidney measured 4.2 cm in length.

INTERPRETED BY

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

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.35 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.53 cm width.

IMAGING PERFORMED BY

Shari Reffi CVT

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

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Liver/Gallbladder

The liver presented generalized enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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The gallbladder was distended in size with anechoic bile and mild dependent lumen gallbladder debris. The cystic and common bile duct exhibited generalized moderate dilation to the approximate level of the duodenal papilla. The common bile duct contained anechoic content with mild mucus. No definitive evidence of obstructive duodenal papilla pathology with potential for mild duodenal papilla thickening.

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Gastrointestinal

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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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 mechanical/metabolic ileus, obstruction or foreign material.

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

Pancreas

The pancreas was normal in size and contour with mild non-homogenous hypoechoic parenchyma and mildly prominent pancreatic duct.

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Free Abdomen

Generalized normal omental echogenicity was present.

WEIGHT

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Intermittent mildly prominent to enlarged 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).

Minor volume primarily perihepatic effusion.

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ULTRASONOGRAPHIC FINDINGS

Primary

- Hepatopathy with minor perihepatic effusion
- Distended gallbladder and diffuse common bile duct with mild mucoduct
- Chronic active pancreatitis pattern
- Overall sonographically unremarkable gastrointestinal tract
- Intermittent mild mesenteric lymphadenopathy

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Secondary

- Bilateral discrete nonspecific renal medullary rim sign

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Pending hepatic cytology, chronic cholangiohepatitis is suspected in conjunction with elevated ALT and biliary tract presentation. Potential for emerging posthepatic obstruction cannot be definitively excluded and clinical sonographic monitoring of the common bile duct if evidence of progressive cholestasis or icterus is indicated.

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Although no sonographic evidence of gastrointestinal mural pathology, chronic triaditis is a potential in this patient. Non-obvious or occult neoplasia thought less likely. Correlation with hepatic cytology primarily to assess for an inflammatory cell type, empirical therapy for cholangiohepatitis, +/- triaditis and close clinical monitoring would be reasonable.

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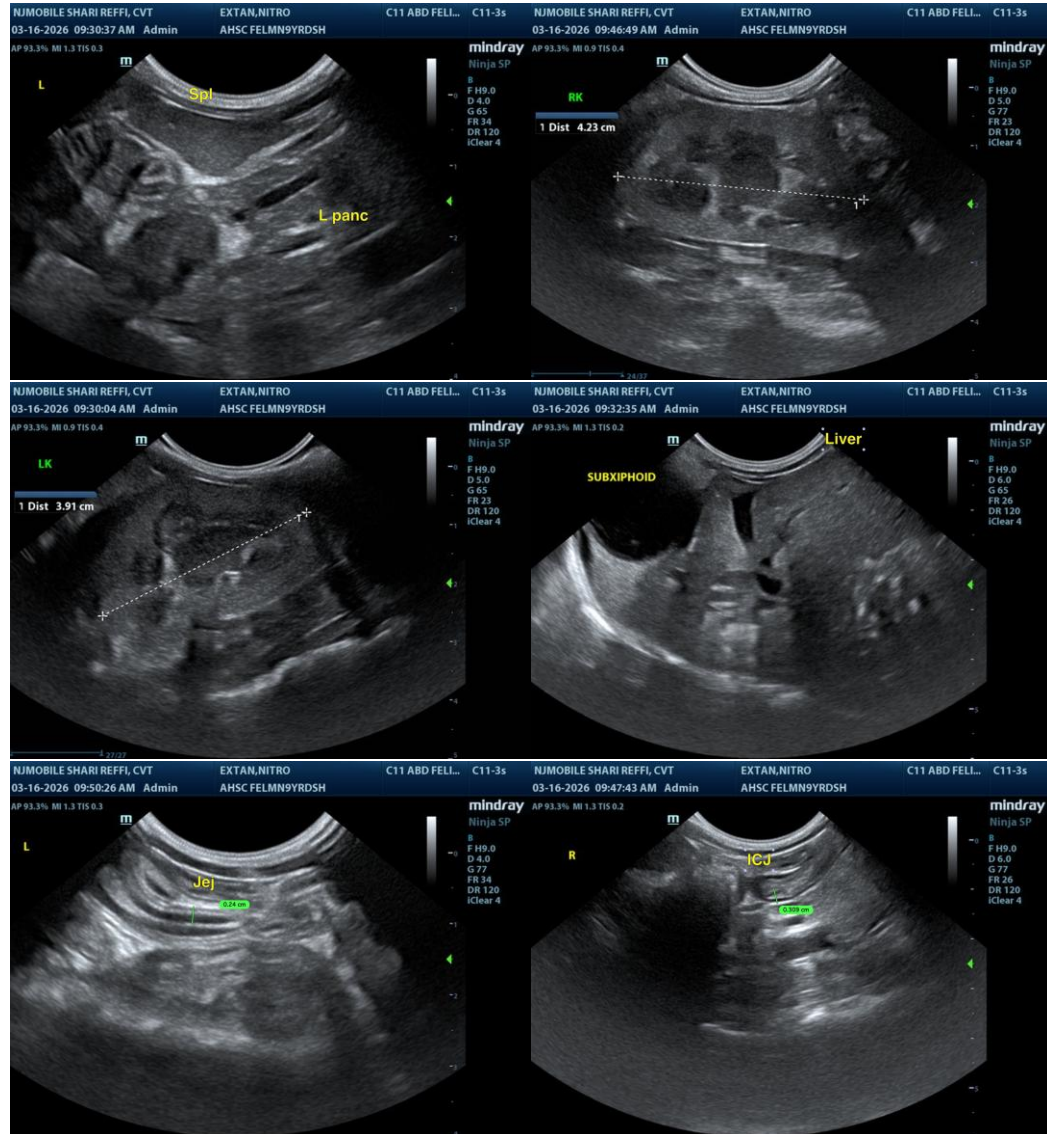
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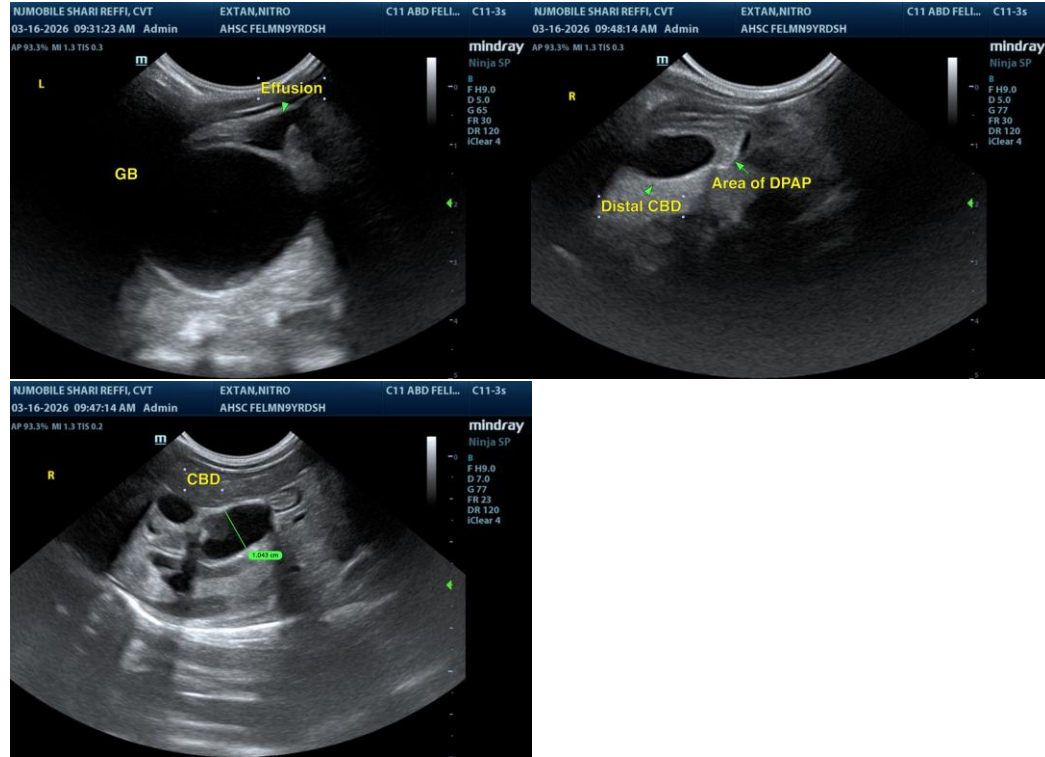
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

INTERPRETED BY

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

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.

IMAGING PERFORMED BY

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