



PATIENT PRESENTING CLINICAL SIGNS

Minnie Minier

History: Hx: 3.4 yo FS Ret Mix 55# Sedated with Butorphanol 5/23/23 Presented for wellness and routine bloodwork screening. No clinical issues per O. Bloodwork: ALT 1105 (H) and ALP 422 (H), AST 129 (H), GGT 34 (H), tbili 0.3. Otherwise NSF. Treated with amoxi/clav and liver protectant x 1 month. Recheck liver enzymes 1 month later ALT 2,019 (H) and ALP 647 tbili 0.5 . O reports possible slight reduced appetite but otherwise doing well.

SPECIES

Canine

BREED

Retriever Mix

SEX

Spayed female

AGE

3 years

WEIGHT

55 lbs

INTERPRETED BY

Dr Brittany Sinclair,
BVSc(hons), DACVECC

IMAGING PERFORMED BY

Dr. Carpenter

HOSPITAL NAME

Pennridge AH

REFERRING VET

Dr. Heller

INVOICE

45009

DATE

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ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and visible pelvic urethra were of normal thickness. The ureters were not visible which is normal. There was normal wall layering with no masses, uroliths or abnormal thickening visualized. Urine was anechoic. No evidence of inflammatory or neoplastic changes were noted.

The kidneys were both normal size and structure, with smooth capsule and normal corticomedullary definition and ratio (cortex 1/3 of medulla). Medullary structure differed distinctly from that of the cortex. No evidence of pelvic dilation was present. The right kidney measured 6.69 cm. The left kidney measured 3.69 cm.

Adrenal Glands

Both adrenal glands were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 2.04 cm in length and 0.44 cm at the cranial pole and 0.42 cm at the caudal pole. The right adrenal gland measured 1.64 cm in length, 0.63 cm at the cranial pole and 0.52 cm at the caudal pole.

Spleen

The spleen was normal with a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma and smooth capsule, with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

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 pathological hepatic lymphadenopathy observed. Gallbladder is moderately distended with normal wall thickness and anechoic contents. Common bile duct is non-distended and tapers normally

Gastrointestinal



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The stomach contains gas shadowing obstructing visualization of contents. It measures at a normal thickness of with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

SPECIES

Canine

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

BREED

Retriever Mix

Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

SEX

Spayed female

Pancreas

The base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour and parenchyma were normal. No overt evidence of active inflammatory or neoplastic disease was noted.

AGE

3 years

Lymph Nodes

No clinically significant lymphadenopathy or abnormalities noted.

WEIGHT

55 lbs

Free Abdomen

No masses or free fluid were noted.

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ULTRASONOGRAPHIC FINDINGS

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1. Normal liver, gall bladder
2. Normal GI tract

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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The liver parenchyma appears normal and there is no ultrasonographic explanation for the elevated liver enzymes in this patient. There is no significant disruption of architecture noted to suggest significant pathology. Toxic insult, infectious or inflammatory hepatitis (bacterial, viral, auto-immune other), and neoplasia among other things are possibilities. Fine needle aspirate is recommended to further characterize parenchymal changes and bile acid profile to assess liver function. Ultimately liver biopsy is often required for more definitive diagnosis. More aggressive empiric treatments (SAM-E, milk thistle, Vitamin E, ursodiol if bilirubin elevated or gall bladder sludge) could be tried and liver enzymes re-evaluated, especially if liver FNA does not show significant pathology before more invasive liver sampling is pursued.

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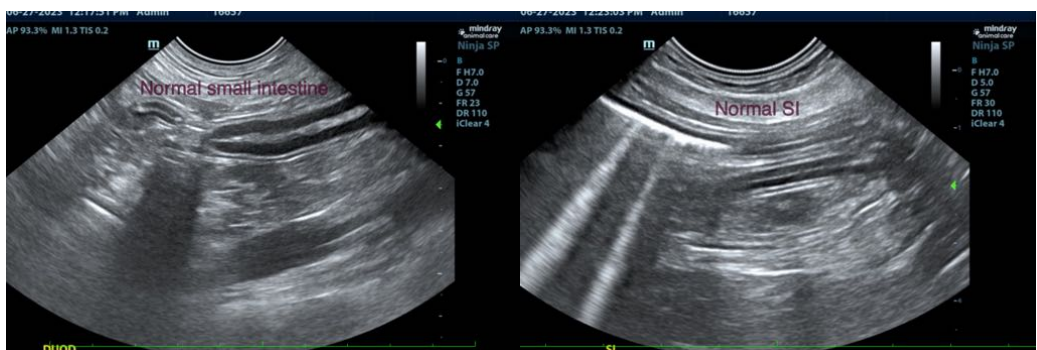
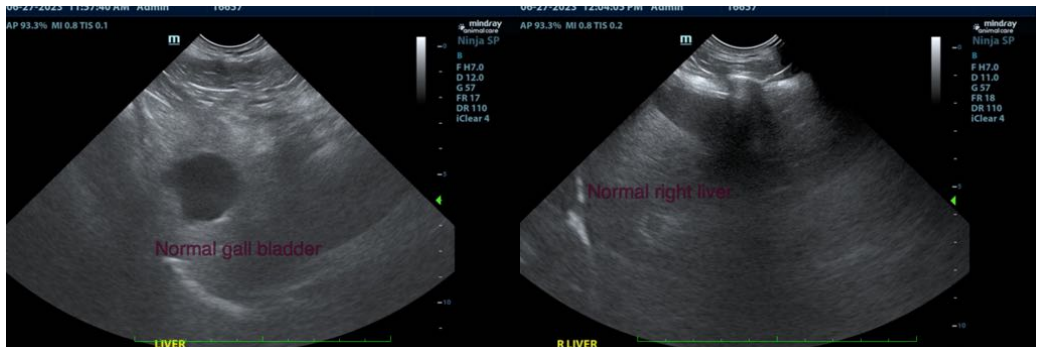
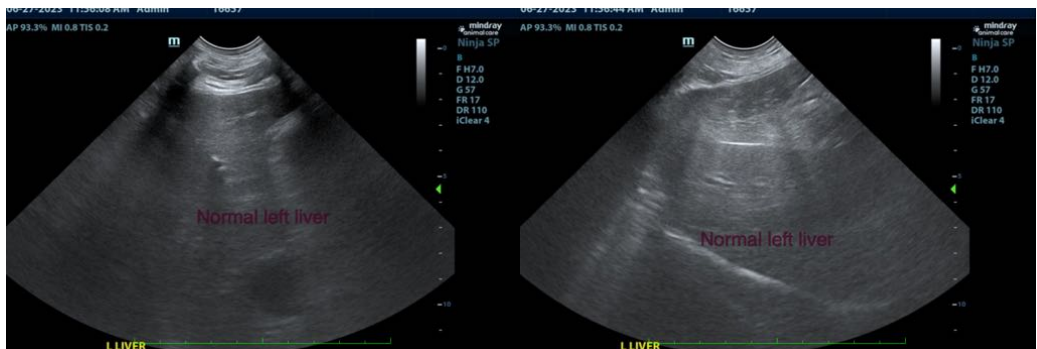
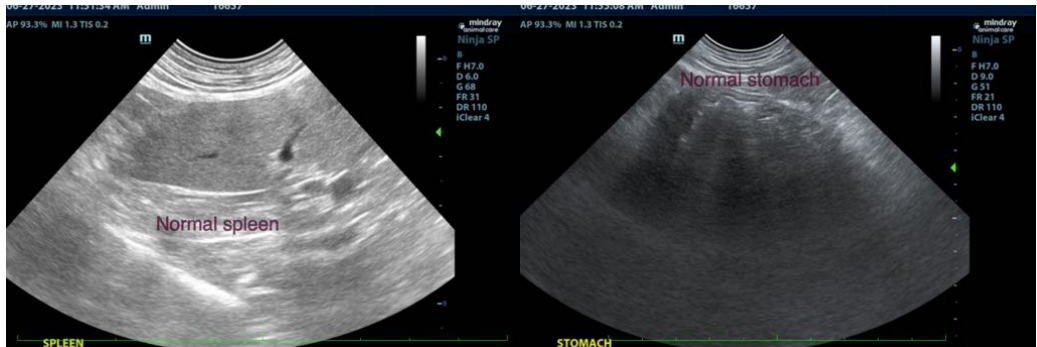
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

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info@SonoPath.com

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