



PATIENT PRESENTING CLINICAL SIGNS

Alvin Pellerin Present Complaint: Not eating/drinking. Suspect microhepatica on radiograph.
Abnormal PE/Chem/CBC/UA Results: Chem: Elevated ALT 603 UI, ALP 283 UI and GGT 16 UI. CBC: NSF

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

Lab X

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

SEX

Neutered Male

The prostate is normal in size (1.2 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

AGE

11 Years

The left kidney has a normal shape and size (5.48 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

27.2 kg

The right kidney has a normal shape and size (6.17 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

Adrenal Glands

The left adrenal gland is normal in size measuring 0.64 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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Dr. Trudeau

The right adrenal gland is normal in size measuring 0.64 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

Petworks VH

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are occasional ill-defined hypoechoic nodules visualized within the parenchyma measuring 0.93 cm nd 0.56 cm. These do not deviate the splenic architecture or capsule.

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Liver

The liver is normal to borderline small in size, and echogenicity with smooth peripheral margins. The parenchyma is severely heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are too numerous to count ill-defined various sized hypoechoic nodules throughout the parenchyma, examples of which measure 1.09, 1.19, and 1.63 cm.

DATE

3/9/23

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.



PATIENT

Gastrointestinal

Alvin Pellerin

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.33 cm 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. Duodenum wall measures 0.43 cm. Jejunum wall measures 0.27 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

BREED

Lab X

SEX

Neutered Male

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. 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.

AGE

11 Years

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

WEIGHT

27.2 kg

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

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ULTRASONOGRAPHIC FINDINGS

- Ill-defined hypoechoic splenic nodules – Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Borderline small liver with too numerous to count ill-defined hypoechoic nodules – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. These findings are likely consistent with diffuse hyperplastic nodules, although an underlying neoplastic process cannot be ruled out.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is borderline small with too numerous to count ill-defined hypoechoic nodules. These nodules deviate the hepatic margins, and there is possible concern for advanced nodular hyperplasia, although an underlying neoplastic process cannot be ruled out. A fine needle aspirate of the liver could be considered (provided coagulation parameters are normal) to evaluate for underlying neoplastic change, but it is likely that a liver biopsy would be necessary to evaluate for a primary hepatopathy causing secondary nodules. Labradors have an increased incidence of chronic active hepatitis. If this can be diagnosed early, it can be treated successfully. Additionally, I would recommend a liver function test and screening for Leptospirosis.



PATIENT

Alvin Pellerin

Additionally, there are some ill-defined hypoechoic nodules in the spleen. These could represent benign hyperplasia or early neoplastic lesions. Options moving forward include fine needle aspirates of these lesions or continued monitoring with ultrasound.

SPECIES

Canine

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

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SEX

Neutered Male

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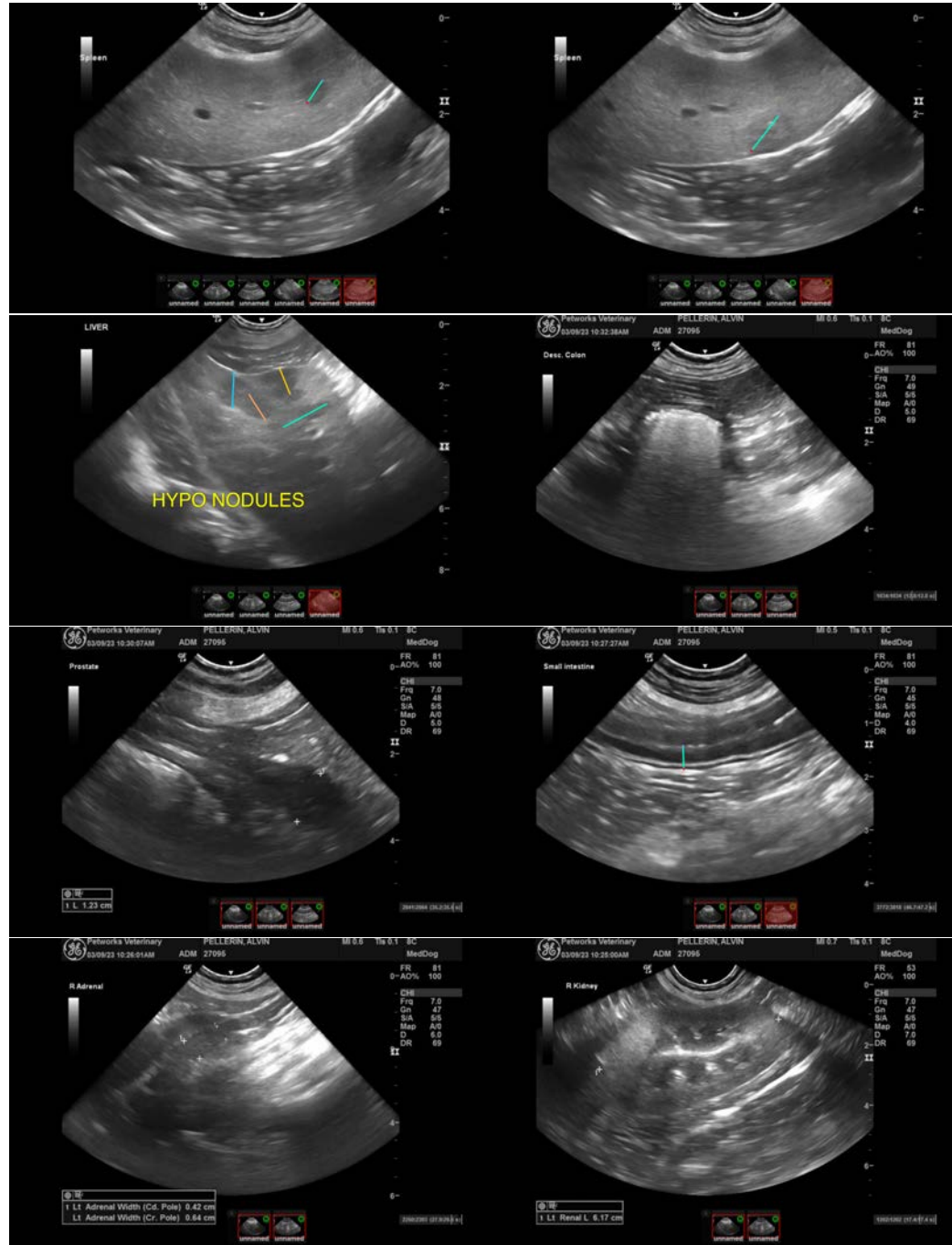
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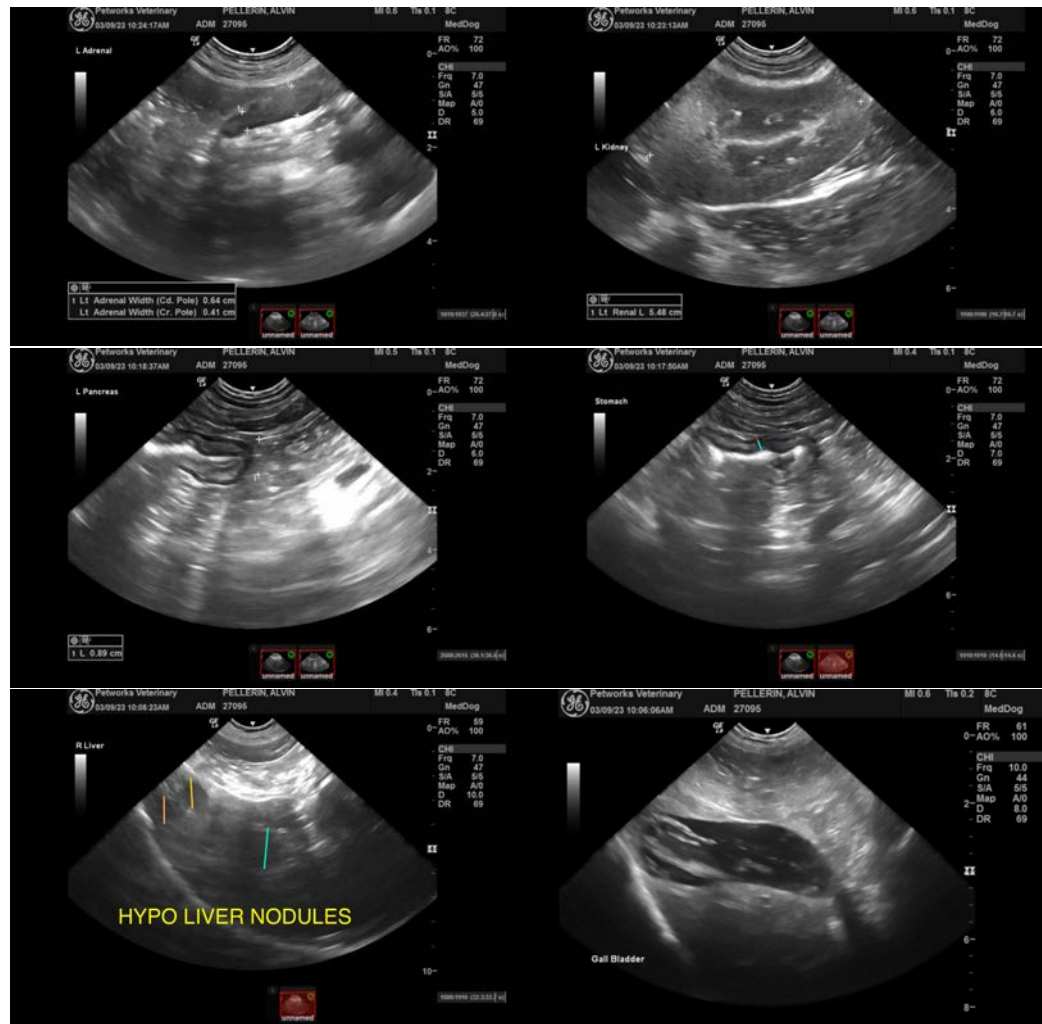
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

kathleen.sennello@sonopath.com