



PATIENT

Loulu Dezii

PRESENTING CLINICAL SIGNS

Several year hx of mildly elevated ALP. Vomited a few times recently. On most recent labwork, ALT and TBili were also elevated - ALT 135, ALP 245, TBili 3.0

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

BREED

Yorki Poo

The kidneys are hyperechoic, and exhibit mildly decreased cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). The left kidney measures 4.7 cm. The right kidney measures 4.8 cm.

SEX

Spayed Female

Adrenal Glands

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland measures 5.5 mm at the cranial pole and 5.3 mm at the caudal pole. The right adrenal gland measures 6.5 mm at the cranial pole and 5.8 mm at the caudal pole.

AGE

14.5 Years

WEIGHT

16.2 Pounds

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline
practice)

Liver

The liver is diffusely hyperechoic and subjectively enlarged. There are hypoechoic nodules present throughout the parenchyma, measuring up to 0.5 cm. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

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Dr. Tam Mengine

The gallbladder is moderately distended with anechoic contents and a large amount of freely-moveable echogenic sludge. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible. Some of the material in the gallbladder appears to be organizing, but is not consistent with a mucocele at this time. There are also tiny polyps present along the gallbladder wall.

HOSPITAL NAME

Stoney Creek VH

Gastrointestinal

REFERRING VET

Dr. Tam Mengine

The stomach is empty. The gastric wall is slightly thickened at 6.7 mm with normal deviations due to rugal folds, and exhibits appropriate wall layering, however the submucosal layer is disproportionately thickened relative to other layers. The pylorus is normal.

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The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. Duodenum wall measures 4.4 mm. Jejunum wall measures 3.8 mm. Intestinal motility appears normal.

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The visible portions of the colon are of normal thickness (1.5 mm) with intact wall layering. The ileocecal junction.



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Pancreas

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The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

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Canine

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

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Yorki Poo

ULTRASONOGRAPHIC FINDINGS

SEX

PRIMARY FINDINGS:

Spayed Female

- Reactive nodular hepatopathy
- Gallbladder sludge and polyps

AGE

SECONDARY FINDINGS:

14.5 Years

- Chronic renal disease
- Mild gastric changes – consistent with mild gastritis.

WEIGHT

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

16.2 Pounds

The changes in the liver are non-specific and could be attributed to endocrine disease, other vacuolar hepatopathies, reactive hepatopathy, storage hepatopathy, chronic infectious or inflammatory disease (including leptospirosis), hepatic lipidosis, or less likely neoplasia. Ultrasound-guided or laparoscopic biopsies would be needed for definitive diagnosis. Recommendations include:

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- ❖ screening for diabetes mellitus and hyperlipidemia if not already performed
- ❖ testing for Cushing’s disease is recommended only if clinical signs support the diagnosis
- ❖ bile acid testing is recommended to further assess severity of hepatic disease - if elevated then liver biopsies should be considered
- ❖ if bile acids are normal, but the ALT is increased, then initiation of liver support therapies such as SAMe, Vitamin E and ursodiol, along with serial monitoring of liver enzyme levels every 2-3 months, could be initiated

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The changes in the kidneys are consistent with chronic renal disease. Recommendations include:

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- ❖ a CBC, chemistry panel, urinalysis, urine protein creatinine ratio and blood pressure measurement are recommended
- ❖ urine culture should also be considered, particularly if urine sediment is active
- ❖ dietary and supportive care recommendations can be made, based on the staging of the disease as outlined in the IRIS guidelines

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The changes in the stomach are consistent with chronic gastritis. Recommendations include:

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- ❖ Empiric treatment with antiemetics, such as maropitant and ondansetron, and antacid therapy, such as omeprazole or famotadine, and gastroprotectants such as sucralfate.



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- ❖ Dietary therapy with either a highly digestible, low fat diet, or a hydrolyzed or novel protein diet is recommended. Feeding frequent small meals is preferred if feasible.

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- ❖ Fecal parasite testing and empiric fenbendazole treatment

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- ❖ Endoscopic biopsies are recommended for definitive diagnosis, and to determine whether corticosteroid therapy would be indicated.
- ❖ Empiric treatment for helicobacter gastritis could be considered. Repeat ultrasound at the end of therapy can assess response, along with monitoring for resolution of clinical signs. Treatment protocol is as follows, for a duration of 28 days :

SEX

Spayed Female

- Azithromycin 5mg/kg PO once daily for 5 days, then every other day thereafter
- Metronidazole 10mg/kg PO BID
- Amoxicillin 20mg/kg PO BID
- Omeprazole 0.7 - 1 mg/kg q24h

AGE

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WEIGHT

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HOSPITAL NAME

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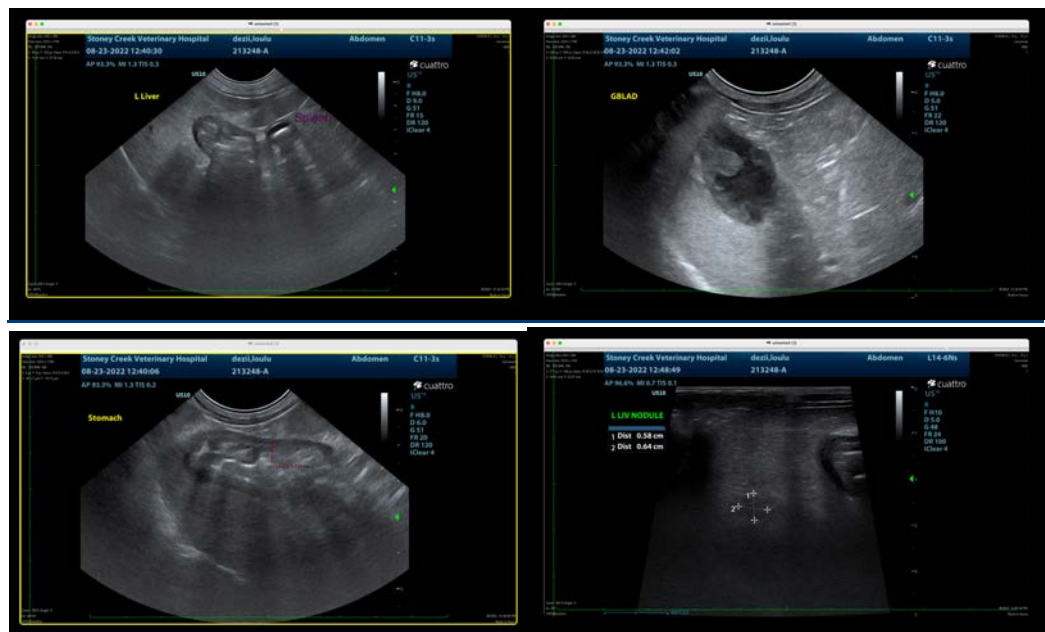
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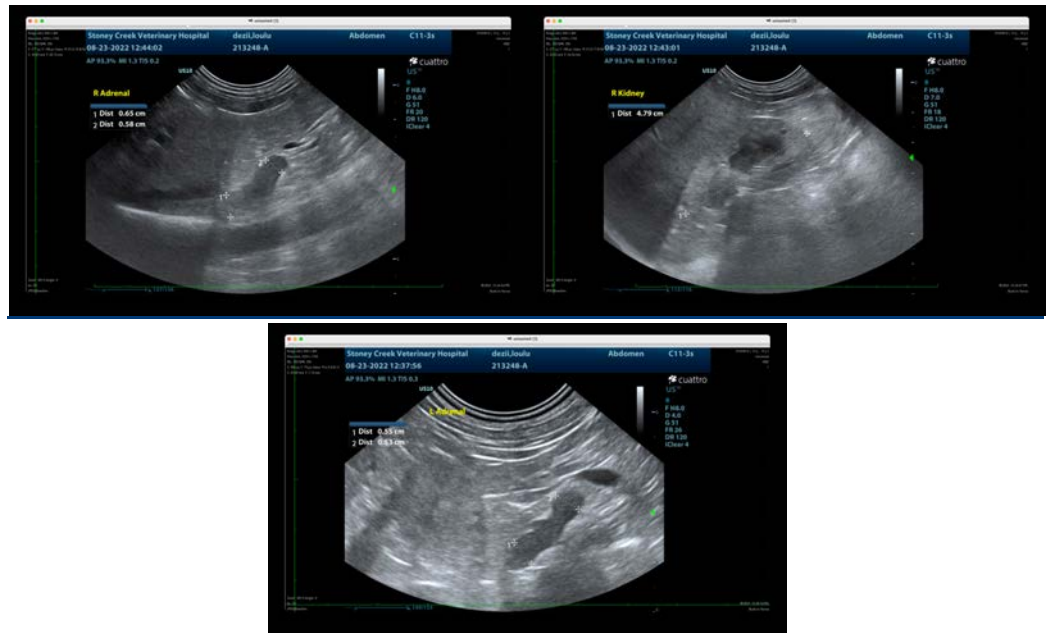
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Tam Mengine, DVM, DABVP (canine/feline practice)

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