



**PATIENT**

Kendall Hofstetter

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

14 Years

**WEIGHT**

7.54 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Andover AH

**REFERRING VET**

Dr. Hummel

**INVOICE**

17329

**DATE**

9/16/22

**PRESENTING CLINICAL SIGNS**

History: Elevated liver values, decreased appetite.

Abnormal PE/Chem/CBC/UA Results: AST 111, ALT 324, ALKP 143, TBILI 0.5, WBC 18.1, LYMPHS 15, MONOS 6

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately 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. Urethra visualized to 2.0 cm.

Both kidneys are hyperechoic and exhibit moderately decreased cortico-medullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). The left kidney is 3.4 cm in length. The right kidney is 3.3 cm in length.

**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 height is 2.4 mm at the cranial pole and 2.4 mm at the caudal pole. The right adrenal gland height is 3.8 mm at the cranial pole and 3.8 mm at the caudal pole.

**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. Thickness at the splenic hilus is normal at 8.0 mm.

**Liver**

The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents. The wall is thin and continuous, with several small polypoid lesions. The cystic and common bile ducts are normal / not visible.

**Gastrointestinal**

The stomach is empty. The gastric wall is 2.6 mm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

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. The duodenal wall measures 2.3 mm. The jejunal wall measures up to 2.0 mm. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to 1.4 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

**Pancreas**



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The left limb and right limbs of the pancreas is hypoechoic, but of normal size and with no changes to the surrounding mesenteric fat. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

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**Free Abdomen**

There is no evidence of free fluid within the peritoneal cavity. The hepatic lymph nodes were mildly enlarged, up to 1.2 cm, with normal short to long axis ratio and appropriate echogenicity. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- A diffusely enlarged and hyperechoic liver, with mild hepatic lymphadenopathy and gallbladder polyps.

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**Secondary Findings**

- Chronic renal changes

**AGE**

14 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The changes in the liver are most consistent with cholangiohepatitis, although infiltrative neoplasia cannot be definitively ruled out without fine needle aspiration. The changes to the gallbladder can be incidental but given the elevated liver values and changes to the liver itself, an infectious or inflammatory process is suspected. Further recommendations include:

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The changes in the liver are consistent with cholangiohepatitis. Ultrasound-guided or laparoscopic biopsies would be needed for definitive diagnosis. Recommendations include:

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- ❖ bile acid testing is recommended to further assess severity of hepatic disease
- ❖ Initiation of liver support therapies such as SAME, Vitamin E and ursodiol
- ❖ Broad spectrum antibiotic therapy, such as a combination of amoxicillin or amoxiclav, in combination with a fluorquinolone, is recommended. If recheck lab values in 1 week show significant improvement, then a 4-6 week total course of antibiotics is recommended.
- ❖ If there is no response to supportive and antibiotic therapy, then empiric prednisone at 2-4mg/kg / day could be considered.

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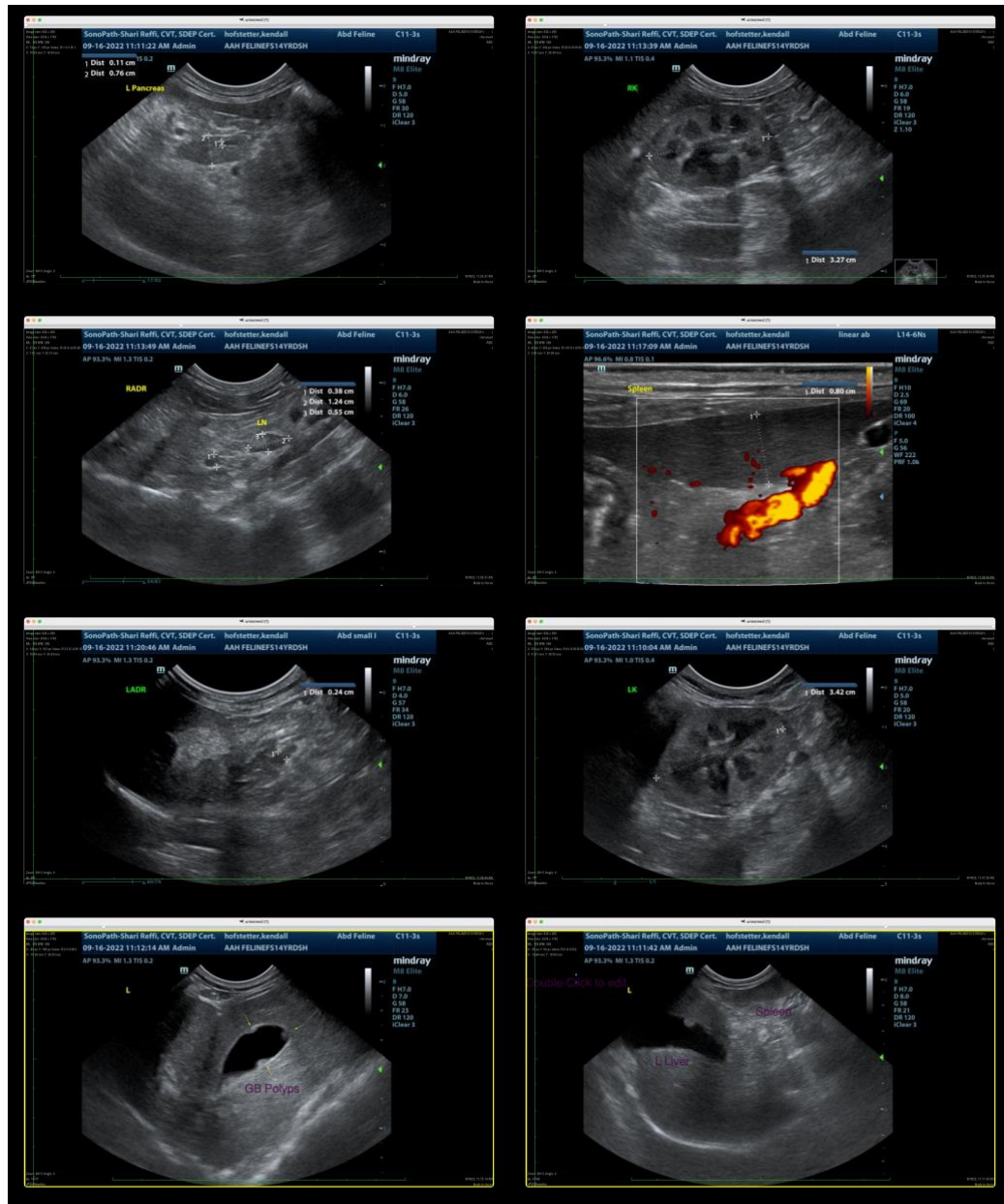
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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) info@SonoPath.com