



PATIENT PRESENTING CLINICAL SIGNS

PATIENT
Louie Hedlund
History: Several month history of intermittent vomiting and anorexia, will resolved within 48-72 hours. R/o include pancreatitis, IBD, other causes of gastritis/gastroenteritis. Is hyperthyroid, appears well controlled

SPECIES
Feline
Abnormal PE/Chem/CBC/UA Results: April 2021: CBC: MCHC=25.9 (30.0-36.0) g/dL, platelets=195 (300-800) K/uL CHEM: amylase=1339 (300-1100) U/L fPL= 5.1 (>2.5 consistent with pancreatitis)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED
DLH
Urinary System

SEX
Neutered Male
The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

AGE
15 Years
The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Ill-defined pelvic fat was noted in the right kidney. This is suggestive for inflammation. Pelvic mineralization was noted and measured 0.4 cm. Calculus movement may be an issue in this patient. Irregular contour and slight cortical infarct was noted. The left kidney measured 4.0 cm.

INTERPRETED BY
Adrenal Glands

Eric Lindquist, DMV DABVP, Cert. IVUSS
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 right adrenal gland measured

IMAGING PERFORMED BY
Desen Ertunc
Spleen

HOSPITAL NAME
Healing Spirit AW
The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

REFERRING VET
Desen Ertunc
Liver

INVOICE
The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

DATE
8/23/21



PATIENT

Gastrointestinal

Louie Hedlund

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

Pancreas

The **pancreas** was hypoechoic and mildly irregular. Approximately measuring 1.0 x 1.0 cm in the right base.

AGE

15 Years

ULTRASONOGRAPHIC FINDINGS

- Minor intestinal thickening.
- Prominent, irregular pancreas.
- Right renal calculus with ill-defined fat. I suspect pyelonephritis.

WEIGHT

14 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinalysis is warranted to assess for any inflammatory sediment. Inflammatory bowel and pancreatitis with clinically episodic inflammatory bowel and pancreatitis are likely playing a long term role in this patient with concurrent urinary tract infection +/- calculus passage. Diet change to a hydrolyzed geriatric diet may prove effective in this patient long term +/- cortisone therapy. However, any evidence of urinary tract infection should be treated prior to cortisone therapy.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Desen Ertunc

Triaditis/Pancreatitis protocol

Part or all of this protocol may be considered based on your clinical impression of the patient:

HOSPITAL NAME

Healing Spirit AW

Recommend pain management when anorexic with **Buprenorphine** (0.01-0.02 mg/kg IM or SC), clinical trial of **Zithromax** (50 mg sid/cat x 10 days, 3 weeks if bartonella +), **Prednisolone** (0.5-2 mg/kg tapering over 1 week to minimal effective dose), and **B12 injections** if weight loss (Cyanobalamine 250 mcg sub-q once-weekly x six weeks, then every other week for six weeks and then once-monthly, long-term if necessary), **novel-protein or hydrolyzed diet** (*Hydrolyzed diets have been shown to be more effective in dietary intolerance case management compared to hypoallergenic diets*) or the **magical Purina DM** (changing protein source is crucial and may need rotation every 6 months if clinical signs recur) Diet trials is a whatever works phenomenon. If vomiting becomes a persistent issue then endoscopy would be warranted and/or recheck sonogram to assess more emerging disease. One diet does not work for all patients so different trials may be necessary or protein source rotation every 6 months as new sensitivities develop.

REFERRING VET

Desen Ertunc

INVOICE

DATE

8/23/21



PATIENT

Louie Hedlund

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

15 Years

WEIGHT

14 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Desen Ertunc

HOSPITAL NAME

Healing Spirit AW

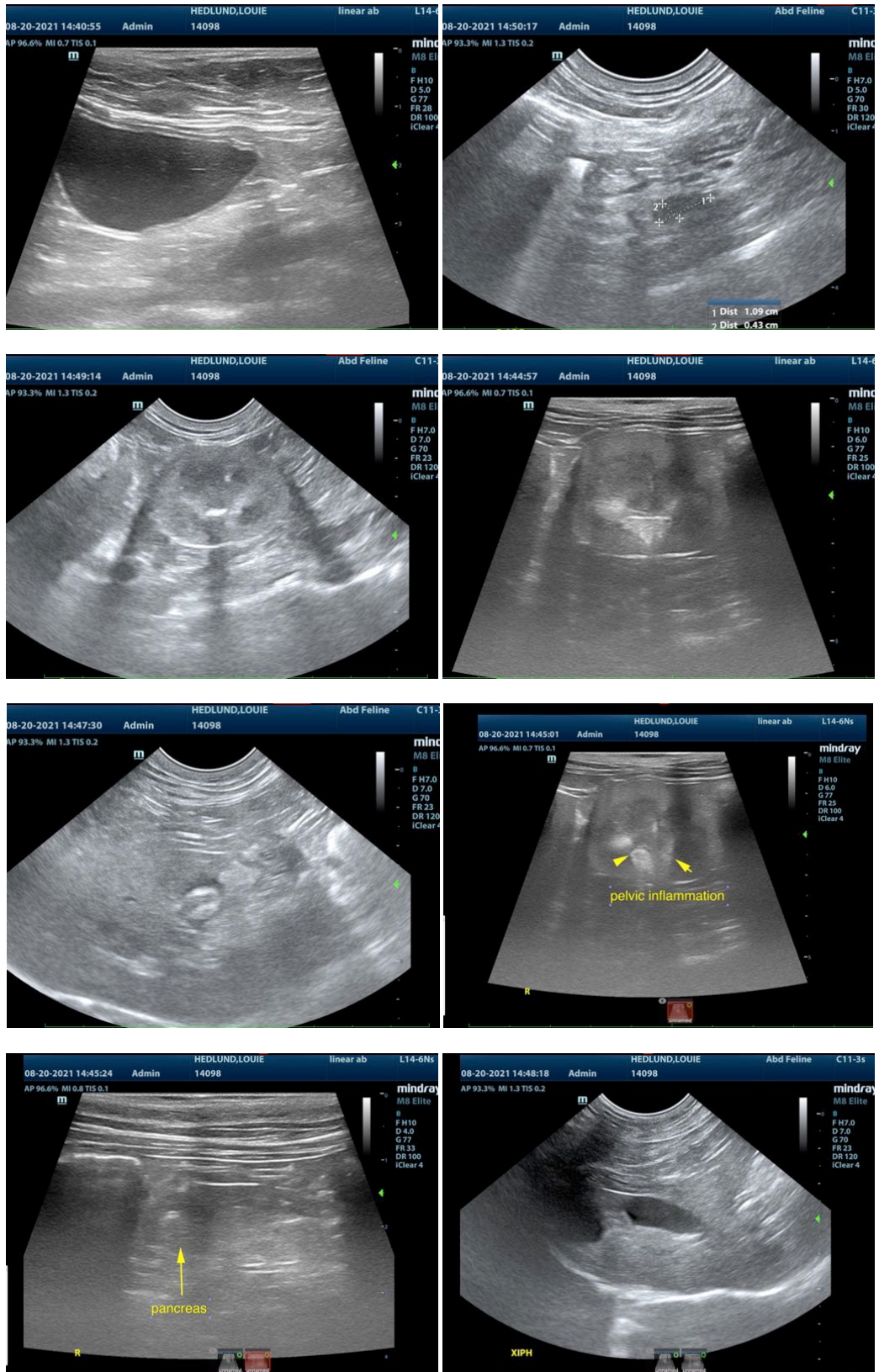
REFERRING VET

Desen Ertunc

INVOICE

DATE

8/23/21





PATIENT

Louie Hedlund

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

15 Years

WEIGHT

14 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Desen Ertunc

HOSPITAL NAME

Healing Spirit AW

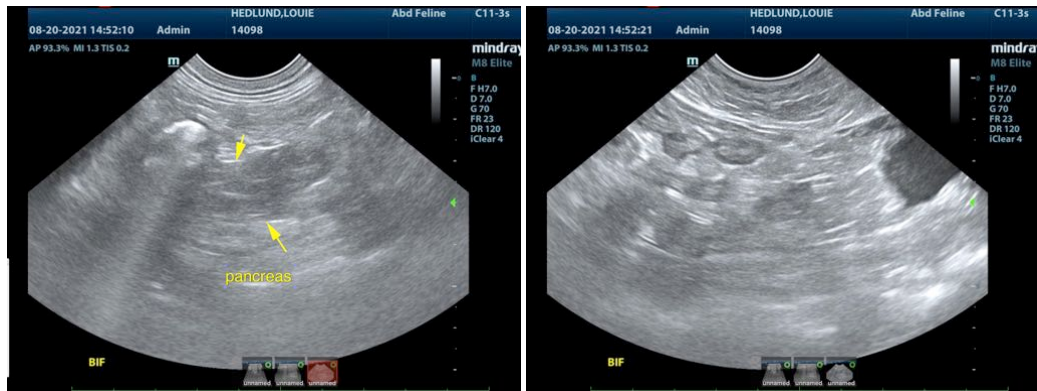
REFERRING VET

Desen Ertunc

INVOICE

DATE

8/23/21



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com