



**PATIENT**

**PRESENTING CLINICAL SIGNS**

Hazel Hillsum

History: Seen 6/15 for no BM for 48 hours and decrease appetite and lethargy. P is a chronic vomiter (hairballs). HX of UTI and heart murmur

**SPECIES**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Feline

**Urinary System**

**BREED**

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. The pelvic urethra was imaged 1.0 cm beyond the cystourethral junction.

DMH

**SEX**

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some minor age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 3.6 cm.

Spayed Female

**AGE**

13 Years

**Adrenal Glands**

**WEIGHT**

4.6 kg

The **left adrenal gland** was 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 0.4 cm.

**INTERPRETED BY**

The region of the **right adrenal gland** revealed no evident pathology.

Eric Lindquist, DMV  
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**Spleen**

**IMAGING PERFORMED BY**

Gardner

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.

**HOSPITAL NAME**

**Liver**

Wilvet Salem

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 duct was tortuous. The common bile duct measured the upper limits of normal and was enveloped by the pancreatic pathology. The common bile duct measured 0.4 cm, which is the upper limits of normal. The common bile duct was followed to the duodenal papilla.

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**Gastrointestinal**

22946

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.

**DATE**

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

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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. This is a mild change. Reactive mesentery was noted associated with the distal small intestine. The upper gastrointestinal tract was thickened. Regional inflammation and variable upper duodenal thickening were noted.

**Pancreas**

The right limb of the **pancreas** was heterogenous. Extensive inflammation was noted along the right pancreatic limb with hypoechoic parenchyma and enhanced surrounding mesentery.

**Free Abdomen**

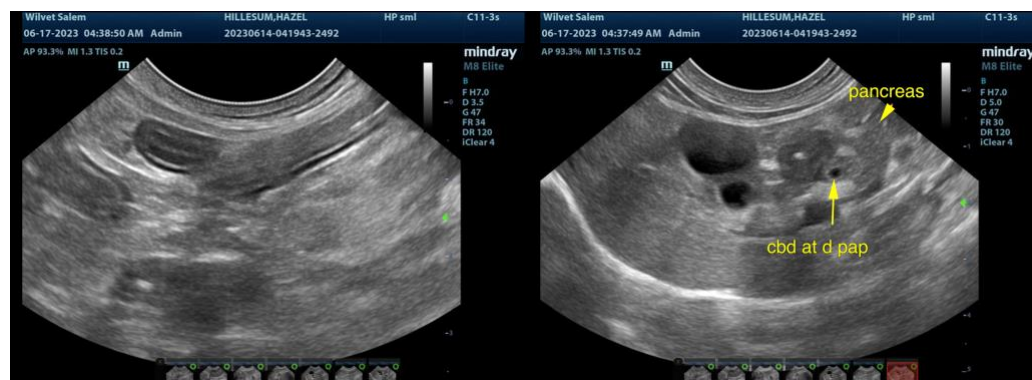
An epigastric **lymph node** was mildly enlarged.

**ULTRASONOGRAPHIC FINDINGS**

- Variable upper gastrointestinal thickening with regional pancreatitis and early post hepatic obstruction
- Mildly enlarged epigastric lymph node
- Age-related renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Treatment for pancreatitis and enteritis is warranted in this patient with recheck sonogram in 48-72 hours or earlier if bilirubin and ALP values increase. Underlying chronic infectious disease, such as toxoplasmosis and bartonella should be considered in this patient. IV fluid support, pain management and broad-spectrum antibiotics indicated. No overt evidence of neoplasia yet emerging round cell neoplasia in the GI tract cannot be completely ruled out.



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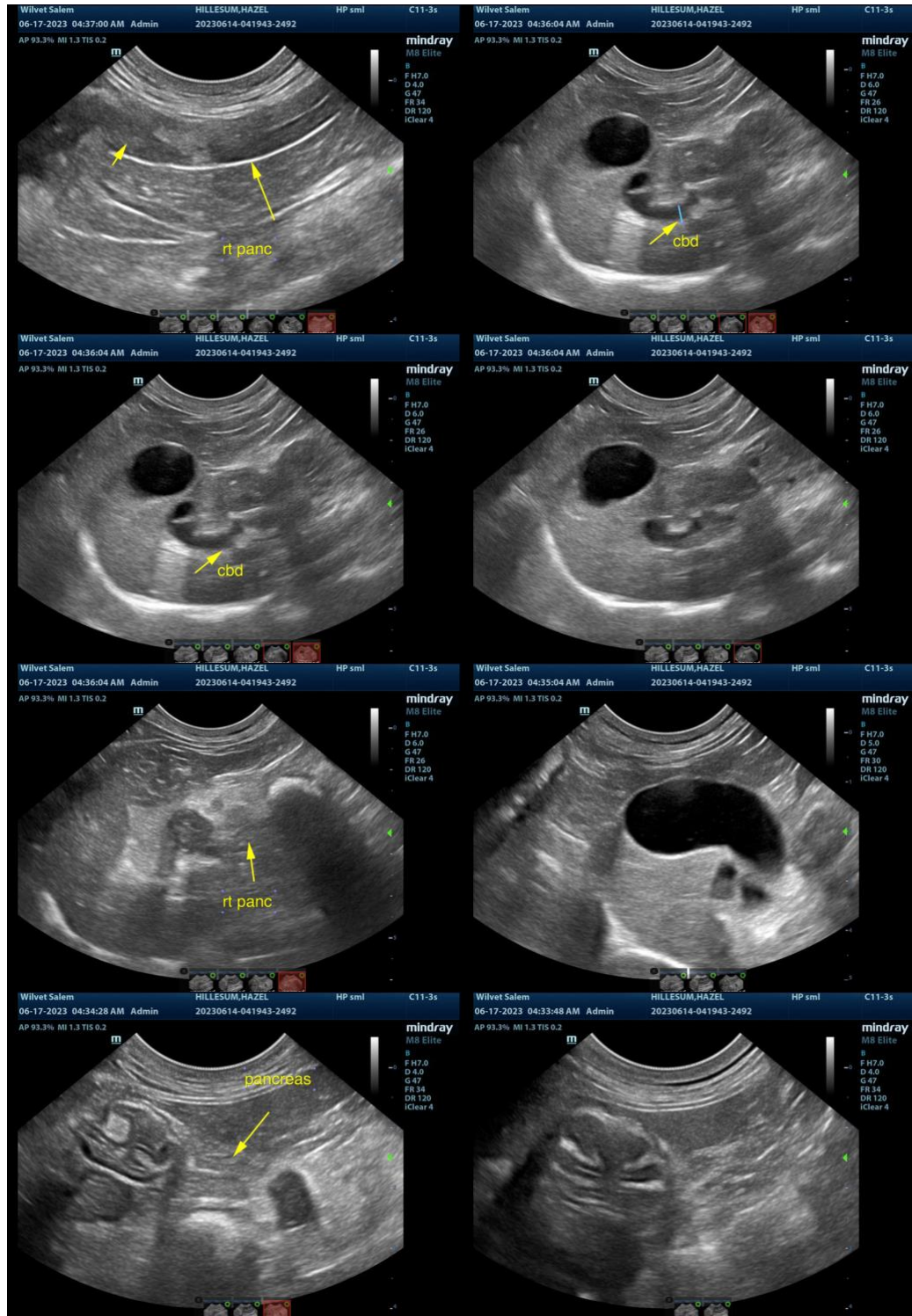
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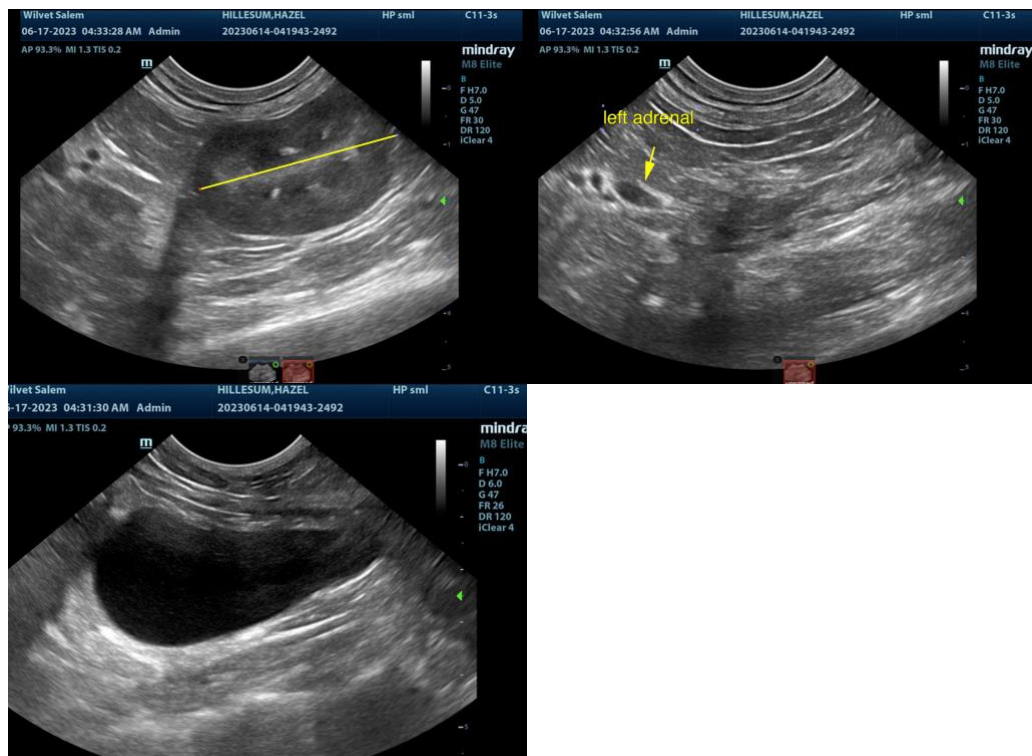
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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  
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