



**PATIENT PRESENTING CLINICAL SIGNS**

**Pogi Avery** History: Increasing liver enzymes despite treatment with Denamarin, Metronidazole and amoxicillin x 3 weeks. Sedated with Torbugesic and microdose DexDom. FNA of Liver done.  
**Abnormal PE/Chem/CBC/UA Results:** PE: Periodontal disease 2/4, BCS 7/9. BW (5/24/22) ALP 1275, ALT 213. BW (6/14/22) ALP 1853, ALT 321.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

Pomeranian

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. 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 was noted. Ureteral papillae were normal.

**SEX**

Neutered male

The residual prostate measured 0.4 cm.

**AGE**

9 years

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 5.03 cm.

**WEIGHT**

27 lbs

**Adrenal Glands**

**INTERPRETED BY**

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 1.31 cm at the cranial pole and 0.69 cm at the caudal pole. The left adrenal gland measured 0.58 cm at the caudal pole and 0.45 cm at the cranial pole.

**IMAGING PERFORMED BY**

Dr. Ebersole

**Spleen**

**HOSPITAL NAME**

Scanvet

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 was noted.

**REFERRING VET**

Dr. Kaltsas

**Liver**

**INVOICE**

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Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. Minor excessive GB debris was noted with the presence gallbladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. Minor gallbladder polyps noted. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive

**DATE**

6/20/22



**PATIENT**

hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

Pogi Avery

**SPECIES**

**Gastrointestinal**

Canine

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

**BREED**

Pomeranian

**Pancreas**

**SEX**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

Neutered male

**AGE**

9 years

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

Benign hepatopathy, structurally unremarkable stable abdomen.

27 lbs

**INTERPRETED BY**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

FNA of the liver can be considered at the time of sedation for further definition. There was no evidence of neoplasia. Underlying reactive hepatopathy or non-specific inflammatory hepatopathy component, yet subjectively appears unremarkable.

**IMAGING PERFORMED BY**

Dr. Ebersole

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

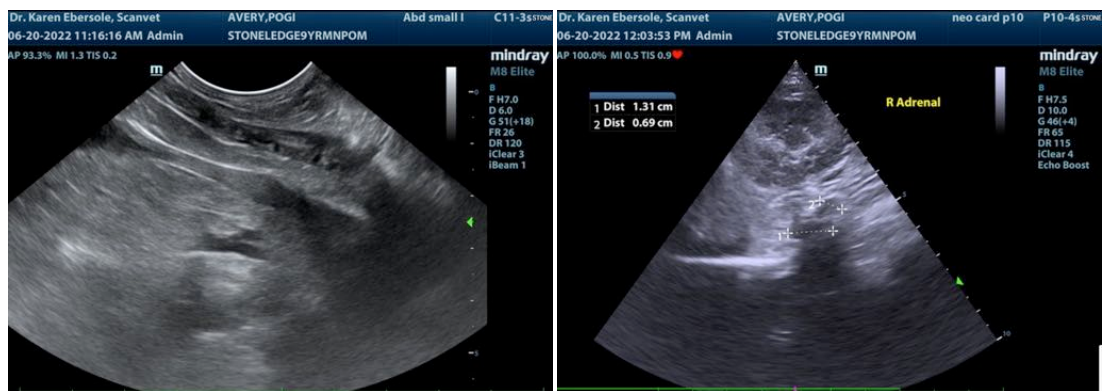
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**PATIENT**

Pogi Avery

**SPECIES**

Canine

**BREED**

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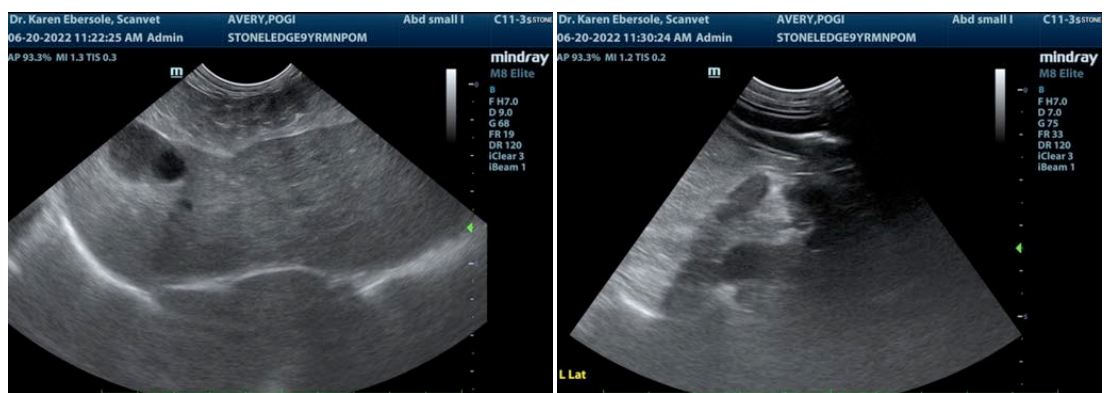
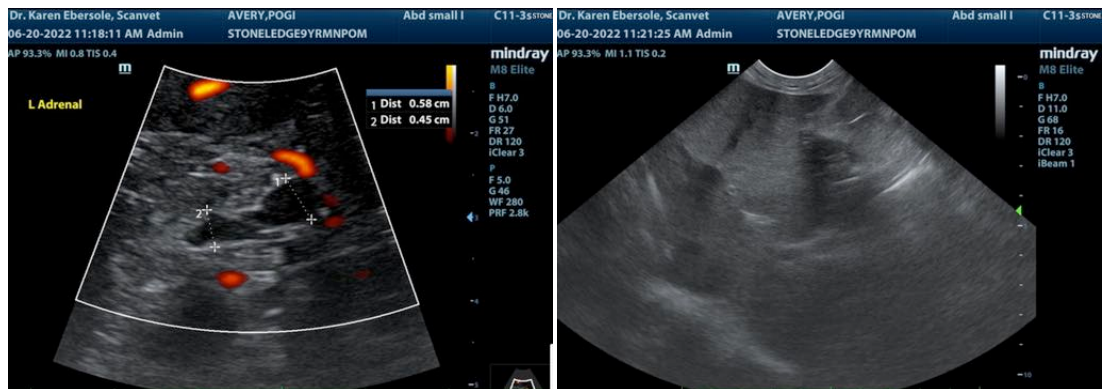
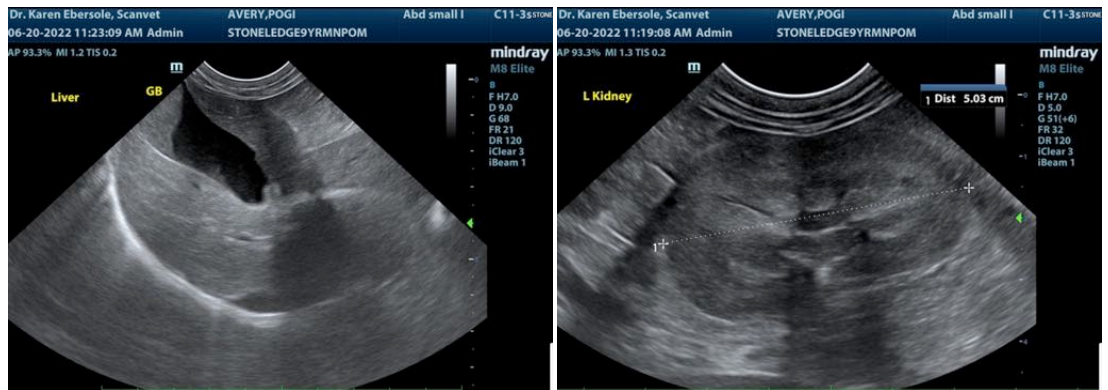
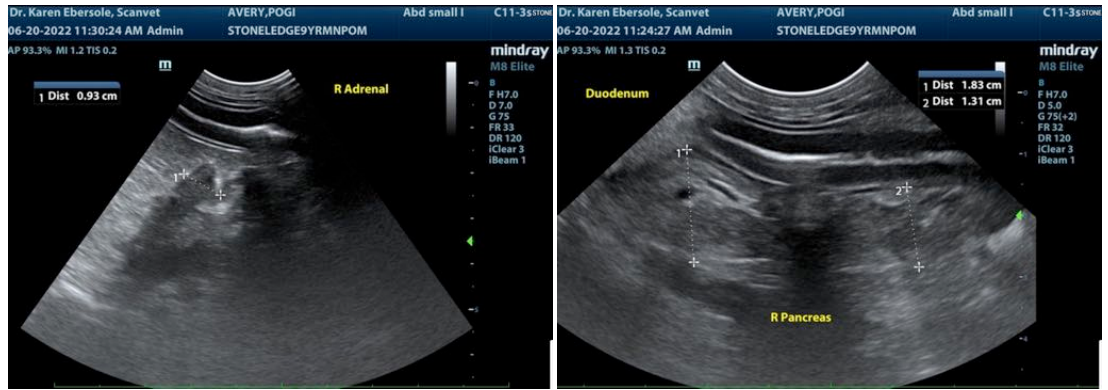
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**PATIENT**

Pogi Avery

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.

**SPECIES**

Canine

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.

**BREED**

Pomeranian

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

**SEX**

Neutered male

**AGE**

9 years

**WEIGHT**

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