



**PATIENT**

Rufus Marko

**PRESENTING CLINICAL SIGNS**

History: Inappetence, vomiting, decreased energy  
Abnormal PE/Chem/CBC/UA Results: BW unremarkable

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Doemstic Shorthair

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. There was an accumulation of sand and calculi. Grouping of which measured 2.5 cm. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**SEX**

Neutered male

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some 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. Slight pinpoint renal mineralization was noted. The left kidney measured 3.8 cm.

**AGE**

13 years

**WEIGHT**

6.2 lbs

**Adrenal Glands**

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 0.34 cm. The left adrenal gland measured 0.3 cm.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Gira

**Spleen**

The **spleen** was mildly enlarged with uniform, but subtly micronodular parenchyma, and undulating capsular contour. This is consistent with reactive spleen owing to immune stimulus or early infiltrative disease such as mast cell disease or lymphoma. 25-gauge FNA would be ideal if weight loss is an issue to differentiate early round cell neoplasia versus splenitis or reactive spleen all of which can present in this manner. The spleen measured 1.17 cm.

**HOSPITAL NAME**

Resolution Veterinary  
Ultrasound

**REFERRING VET**

Dr. Gira

**Liver**

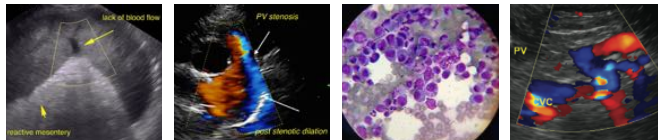
The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls 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.

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1/24/23



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Domestic Shorthair

**Gastrointestinal**

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall. The muscularis layer was hypertrophied inverting the normal ratio (1:3). The duodenal papilla appeared slightly thickened, yet not overtly pathological. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic inflammation. No evidence of obstruction was present. Chronic inflammatory bowel disease is probable with a low possibility of an early neoplastic event such as lymphoma or, less likely, dry form FIP can at times be found on biopsy of these presentations. 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 more significant disease than IBD. The mesenteric lymph nodes are reactive and measured 1.14 x 0.5 cm.

**SEX**

Neutered male

**AGE**

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**Pancreas**

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.

**WEIGHT**

6.2 lbs

**ULTRASONOGRAPHIC FINDINGS**

Mild, diffuse intestinal thickening.

Minor splenic enlargement. Reactive spleen versus emerging round cell neoplasia.

Age related renal changes.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of neoplastic criteria. If weight loss is an issue then FNA is indicated. Management for inflammatory bowel, food intolerance and occult parasitism are all valid interventions. Subxiphoid palpation is recommended. Cystotomy, sand analysis and intestinal biopsies can be considered for therapy and long term management.

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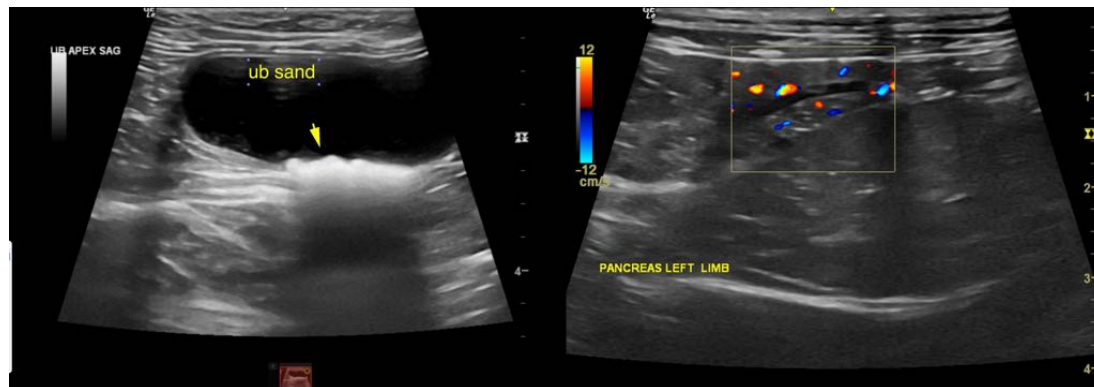
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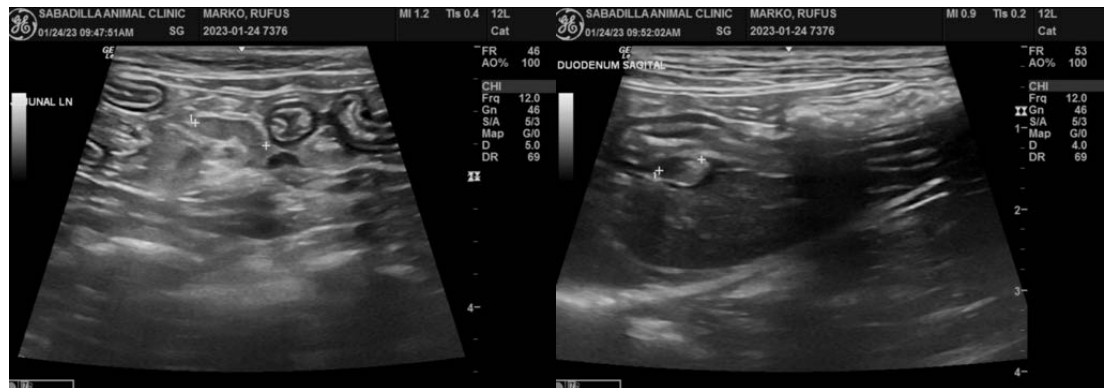
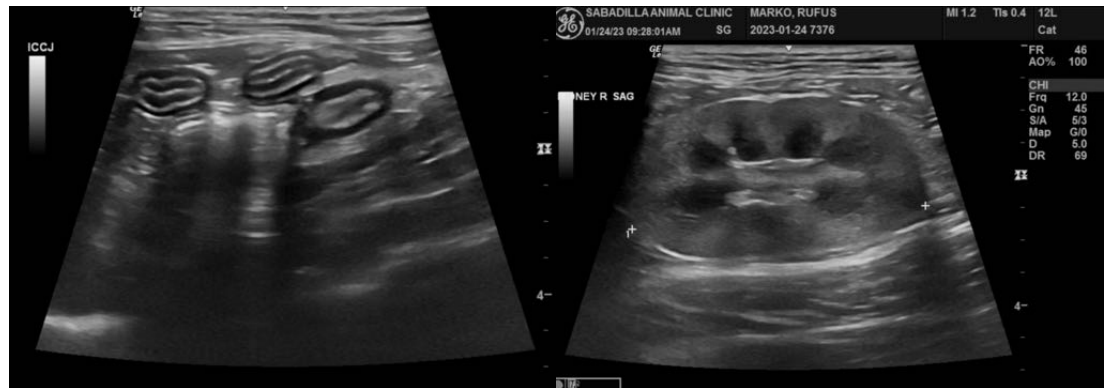
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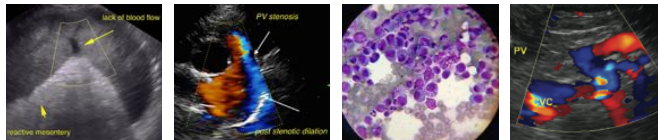
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Feline

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**

Domestic Shorthair

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

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