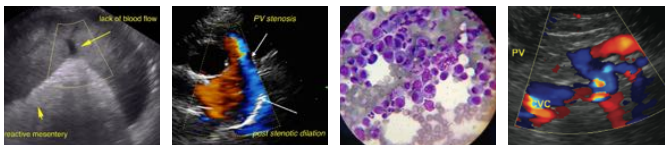
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Penaut Richards

SPECIES
Canine

BREED
Shih Tzu

SEX
Spayed feamle

AGE
12 years

WEIGHT
5.2 kg

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. Biederbeck

HOSPITAL NAME
Lomsnes VH

REFERRING VET
Dr. Biederbeck

INVOICE
42747

DATE
2/13/23

PRESENTING CLINICAL SIGNS

History: Ultrasound for neighbouring clinic. Hx of abdominal distention, pu/pd, ravenous appetite ALKP 977, in past has been 1300-1440. ALT 1207, sl elevation in TP/Alb/Glucose/K

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

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. The kidneys measured 4.0 cm each.

Adrenal Glands

The **adrenal glands** were not visualized.

Spleen

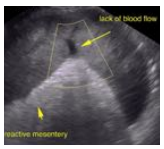
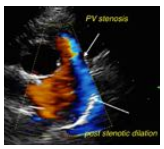
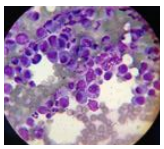
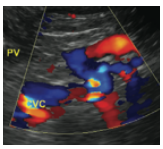
The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or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

Liver

The **liver** in this patient presented a mixed, hypoechoic, mildly to moderately disruptive nodules with a large parenchymal mass that was deriving from the mid caudal liver. Surrounding free fluid was noted. Hyperechoic, puffy cloud appearance would suggest carcinoma. The free fluid is likely paraneoplastic and/or owing to portal hypertension. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal.

Gastrointestinal

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

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demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

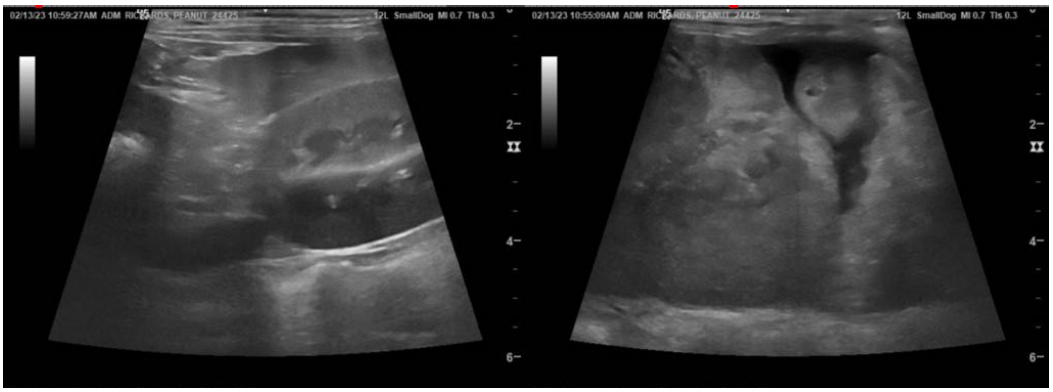
ULTRASONOGRAPHIC FINDINGS

Extensive, hepatic mass with pronounced nodular changes throughout the liver.

Free fluid, suggestive for inflammation, paraneoplastic effusion or ascites from portal hypertension.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

CT evaluation would be recommended to assess for potential respectability of the primary mass or direct exploratory surgery with resection of the primary mass with liver biopsies. Otherwise, intercostal approach to FNA of the liver deep liver lesions is recommended to assess if nodular hyperplasia is related to the mass itself. The mass id precarious and somewhat pedunculated. If the free fluid is hemorrhagic then I cannot rule out torsion or necrosis. Chest radiographs are warranted toa ssess for metastatic disease.



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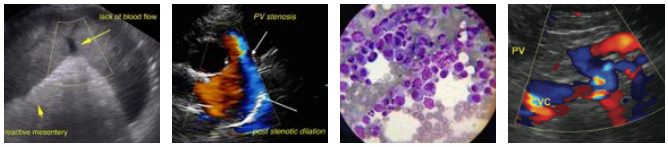

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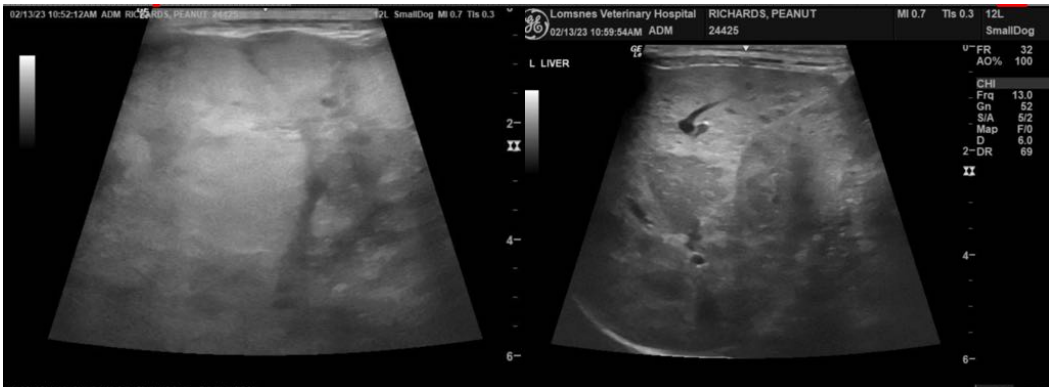

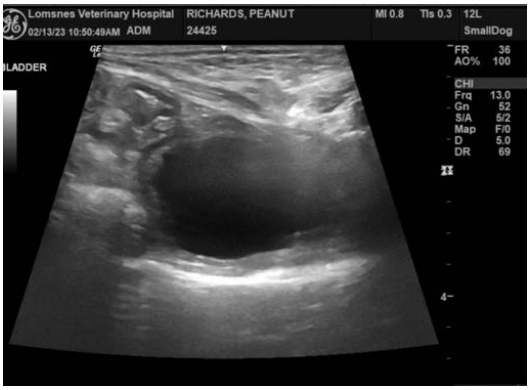

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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