



PATIENT

Lala Thamm

SPECIES

Canine

BREED

Golden Retriever X

SEX

Spayed Female

AGE

2 Years

WEIGHT

25 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Signal Hill AH

REFERRING VET

Dr. Cumyn

INVOICE

38335

DATE

6/2/22

PRESENTING CLINICAL SIGNS

Dog was rescuers from the Asian meat trade 1 year ago. Age unknown. Was presented for a fish hook impaled in the elbow and attending notice pendulous abdomen and fluid wave. Elevated liver enzymes
Patient presented bright and alert
Abnormal PE/Chem/CBC/UA Results: Elevated liver enzymes normal coat panel

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** presented a moderate amount of debris, both suspended and dependent.

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 right kidney measured 6.5 cm. The left kidney measured 5.77 cm.

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 0.49 cm at the cranial pole and 0.34 cm at the caudal pole. The left adrenal gland measured 0.50 cm at the cranial pole and 0.44 cm at the caudal pole.

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 were noted.

Liver

The **liver** appeared uniformly enlarged. No evidence of vascular congestion noted. Slight coarse architecture noted. Edematous gallbladder wall noted.

The portal vein appeared conical and dilated. Intrahepatic vascularity appeared to be normal to subjectively subnormal. No evidence of passive congestion.

Gastrointestinal

The **stomach** was overdistended with concentric gastric wall thickening. Areas of loss of mural detail noted. Gastric wall thickening measured up to 1.5 cm. The small intestine was unremarkable.

Pancreas

The **pancreas** was hypoechoic, ill-defined and nodular with enhanced surrounding mesentery. Extensive areas of hypoechoic parenchyma noted, consistent with necrosis. Other areas of the pancreas appeared hyperechoic and coarse, consistent with remodeling and fibrosis.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.



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The uterine stump measured 0.48 cm, appears stable.

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Rapid view of the heart revealed normal volumes and contractility. No evidence of masses or causes of passive congestion.

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ULTRASONOGRAPHIC FINDINGS

- Moderate urinary bladder debris
- Hepatomeagly
- Conical portal vein
- Gastric thickening
- Pancreatic necrosis

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Ultrasound guided FNA of the thickest portion of the gastric wall as well as the pancreas warranted. Fresh abdominocentesis with cytospin and rapid slide preparation to assess underlying sediment. Given that albumin levels are reported to be normal, and no evidence of passive congestion is present, gastritis/pancreatitis/pancreatic necrosis is evident with adhesion patterns throughout the pancreas and upper gastrointestinal tract. There is as possibility of carcinomatosis or similar neoplasia.

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FNA of the stomach and pancreas warranted to rule out this possibility, as well as cytospin of the free fluid and immediate slide preparation to assess for exfoliating neoplasia. However, given the conical portal vein and lack of flow on color flow assessment, I'm concerned for a portal vein thrombus. However, further imaging would be necessary.

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Given the extent of the pancreatic pathology, portal vein thrombosis is a strong potential, which would cause secondary ascites and transudate to modified transudate pattern. CT with contrast would be ideal to rule out this possibility in the abdomen. Exploratory surgery with expectations of debridement of necrotic tissue and obtaining biopsies as well as visualizing the portal vein, assessing for thrombosis, would be the ultimate approach in this case. Prognosis is guarded. Full coagulation panel with d-dimer assessment would be ideal in this patient to assess for hypercoagulable state to support the potential for portal vein thrombosis. However, even with normal coagulation panels, portal vein thrombosis is still a potential.

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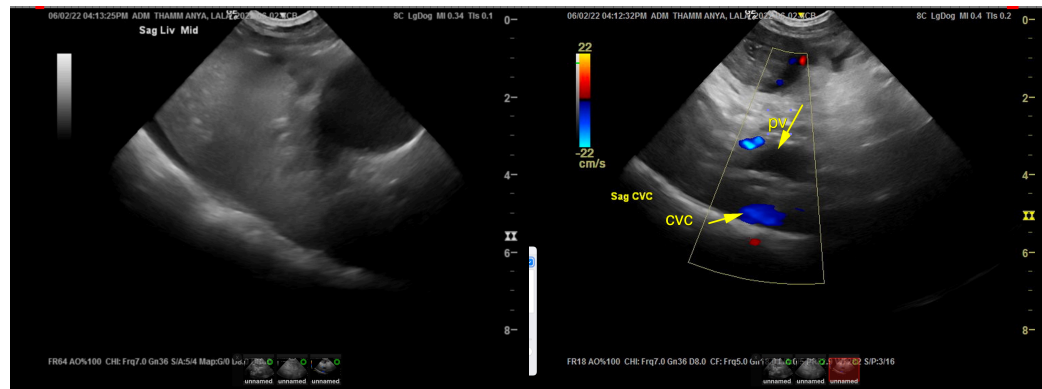
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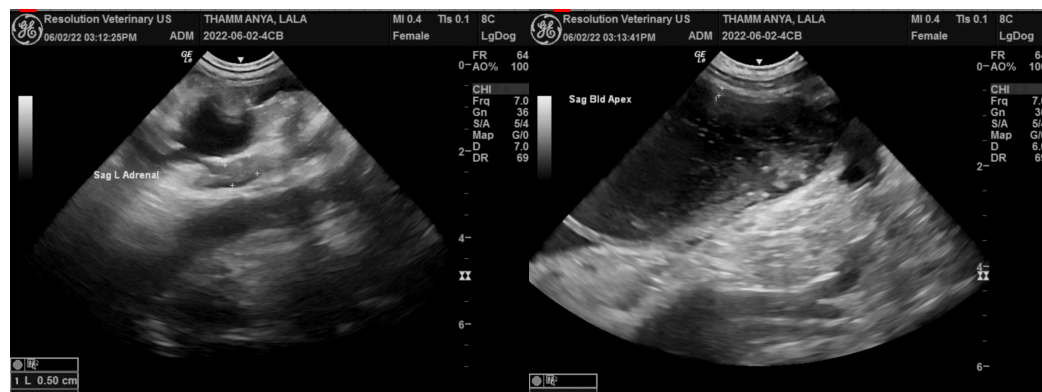
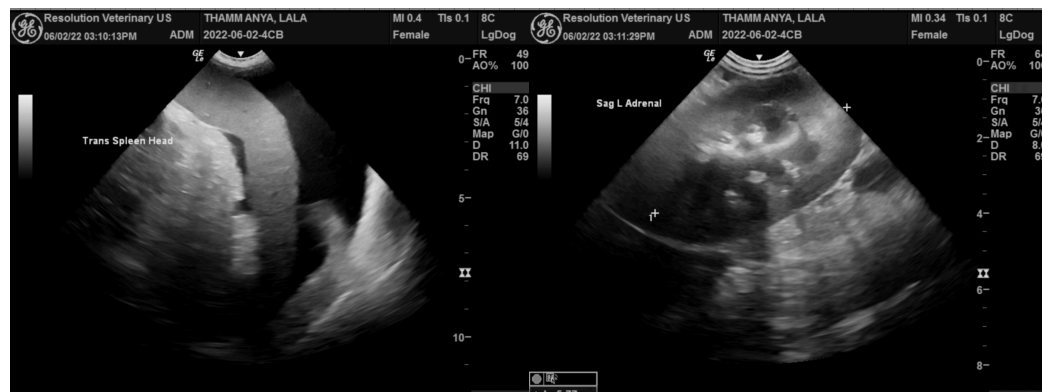
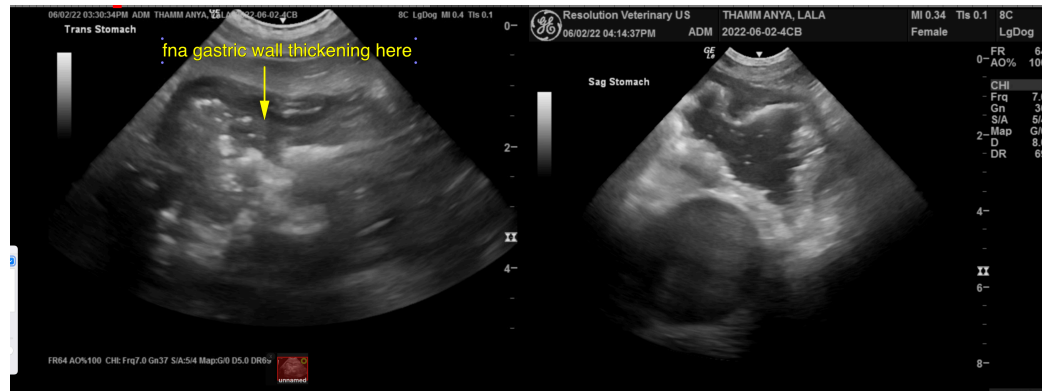
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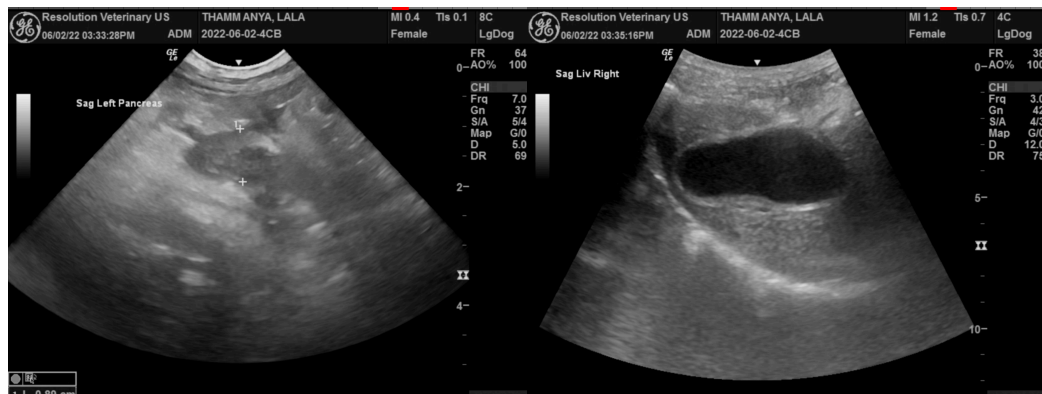
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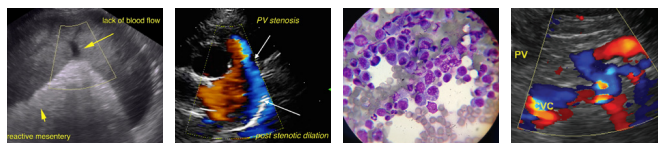
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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

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