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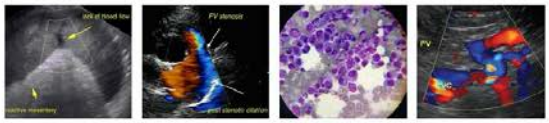


IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Chloe Regan

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

13.6 Years

WEIGHT

13.8 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Truckee Meadows VH

REFERRING VET

Dr. Rachel Kuester

INVOICE

33663

DATE

12/21/21

PRESENTING CLINICAL SIGNS

Signalment: 16738 Chloe Regan Canine Shih Tzu Spayed Female 13.6 13.8 lb Medication Strength Dosing Instructions Last given Apoquel Eye medications (unknown, managed by ophtho) Doxycycline Hydrocodone Procedure: Abdominal ultrasound Current Problem List: Infectious tracheobronchitis Keratopathy Periodontal disease PU/PD Dribbling urine / urinary accidents in the house Presenting Complaint: Presented for coughing 12/13/21. Had been to groomer and daycare earlier in the week. PE consistent with infectious tracheobronchitis. No heart murmur, eupneic lung sounds. O also reports pu/pd and urinary accidents in the house. Senior labwork submitted and results indicate marked liver enzyme elevations and marked thrombocytosis. DDx: Primary hepatopathy, endocrine disease, neoplasia Pertinent Diagnostic Results: Senior Wellness Panel CREA 0.5 (L) TP 7.5 (H) ALT 1032 AST 82 ALP 510 GGT 32 T4 2.1 (N) PLTs 1024 USG 1.034 Marked elevations on liver values, marked thrombocytosis.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (4.02 cm) with mild pyelectasia at 0.1 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.12 cm) with pyelectasia at 0.24 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.69 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

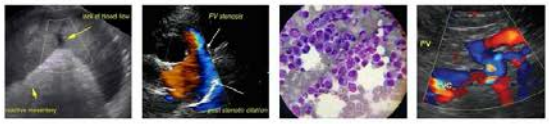
The right adrenal gland is large in size measuring 0.79 cm at the cranial pole, 1.35 cm at the caudal pole, and 2.8 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is relatively normal in appearance (uniformly hypoechoic), but has an enlarged caudal pole.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a small hypoechoic, slightly moth eaten appearing nodule visualized within the parenchyma, measuring 0.64 cm x 0.81 cm.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of



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the vasculature and biliary tract appear normal. There is a very large, mixed echogenic, multiloculated mass effect on the right side of the liver, measuring at least 4.5 cm x 8.3 cm.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is minimally dilated with fluid and irregular shadowing material. The gastric wall appears focally severely thickened with a large hypoechoic mass effect and loss of layering in this section. This mass lesion comprises two areas, one measuring 0.98 cm x 0.83 cm. The other measures 2.0 cm x 2.2 cm. The rest of the gastric wall appears normal in thickness with normal intact layering.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

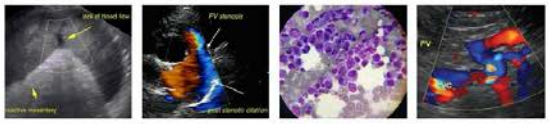
Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a mesenteric lymphadenopathy present with the hepatic measured as enlarged at 1.15 cm x 1.49 cm. The omentum is generally of increased echogenicity, particularly around the liver mass.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen.

PRIMARY FINDINGS

- Large, mixed echogenic liver mass – could be consistent with a benign or malignant tumor.
- Large gastric wall mass – Possible differentials are benign or malignant neoplasia, an ulcer with hematoma, fungal disease, etc. Findings favor a neoplastic process.
- Enlarged right adrenal gland – Right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.
- Small, hypoechoic, mildly cystic splenic nodule – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.



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- Decreased corticomedullary distinction of both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left and right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Significantly enlarged hepatic lymph node - Differentials include malignant neoplasia, inflammation, infection. Findings favor a metastatic node.

SECONDARY FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

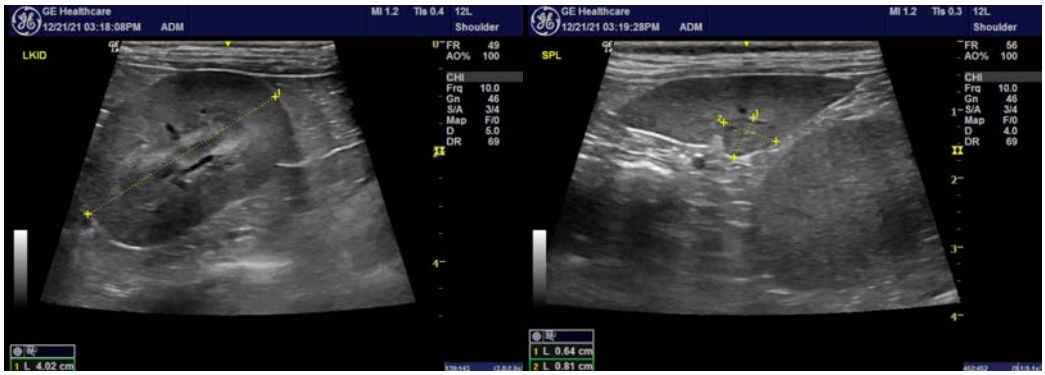
There are multiple mass lesions observed in the abdomen. There is a very large hepatic mass in addition to a large gastric mass, and smaller lesions involving the spleen and right adrenal gland. The mass lesion in the liver is the likely source of the liver enzyme elevation, and the adrenal mass could be creating excess cortisol, causing the liver enzymes to rise further.

The gastric lesion is highly suspect for a neoplastic process, but a clot with another lesion is possible. If this is to be approached in a medically aggressive manner, I would consider:

- 3-view thoracic radiographs.
- An abdominal CT scan to evaluate the likelihood of surgical resection of both the hepatic and gastric masses.

If this is approached in a less aggressive manner, then you could consider:

- Anti-nausea medications and antacid medications in case of gastric ulceration.
- Recommend 3-view thoracic radiographs.
- Recommend blood pressure evaluation and treatment of hypertension if present.
- Consider urinalysis and culture in case there is pyelonephritis present.
- Consider upper GI endoscopy to further evaluate the gastric masses.



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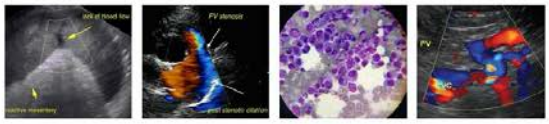

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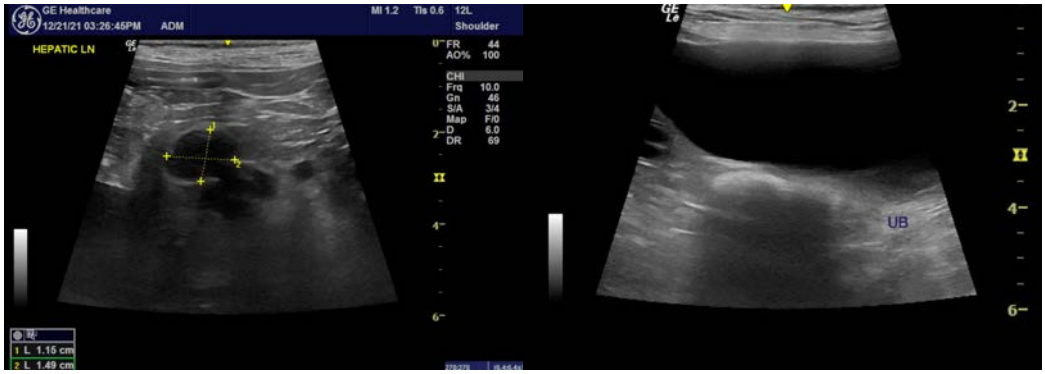

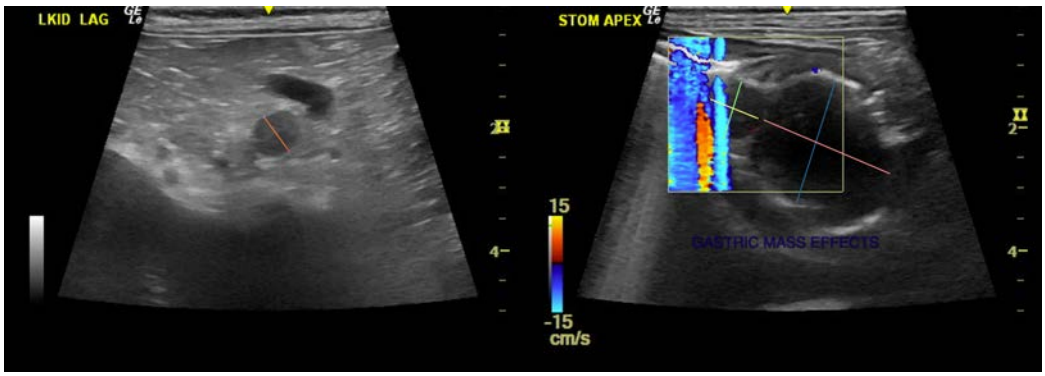

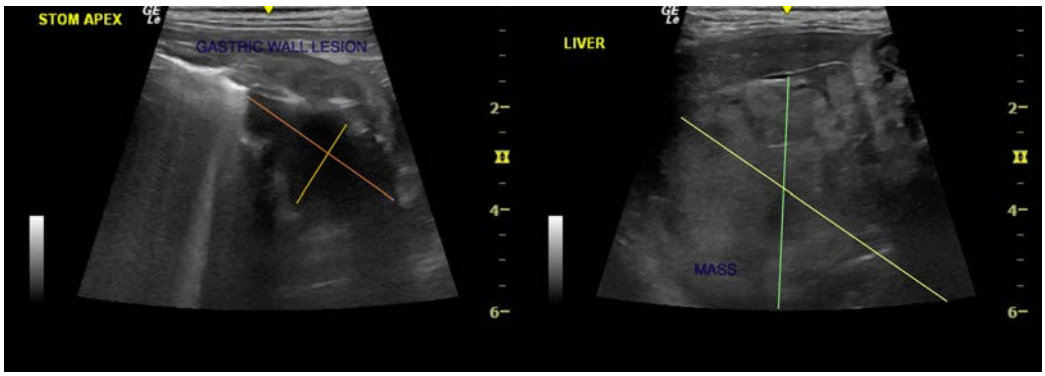

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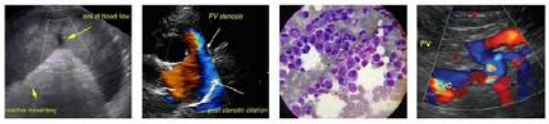

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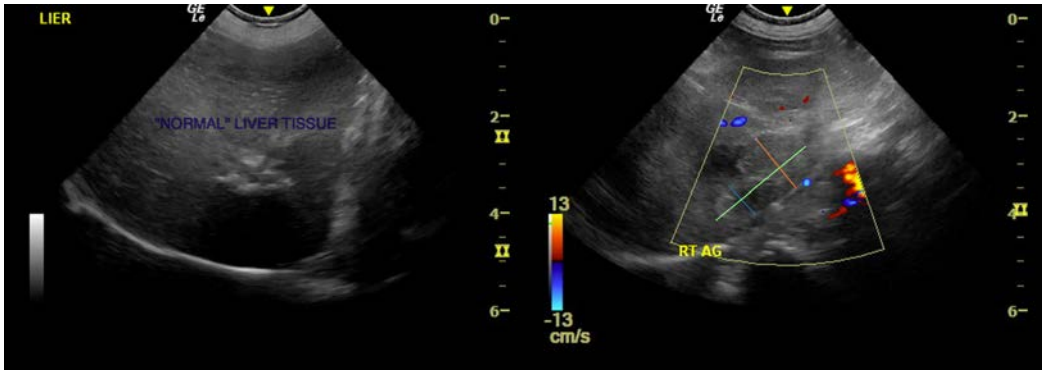

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

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