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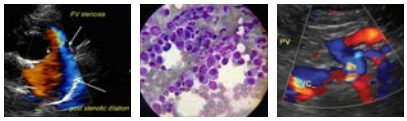

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DATE

7/14/22

PATIENT

Howie Dawit

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

9/25/09

WEIGHT

31 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Banfield Columbia

REFERRING VET

Dr. Scherping

INVOICE

39529

PRESENTING CLINICAL SIGNS

History of elevated liver enzymes. Was dx HAC in the past, however has been off trilostane ~1 yr now and resting cortisol done 7/7/22 was normal. Recent history of neck pain and right foreleg pain that improved with rest and analgesia.

Current Medications: Gabapentin 100mg BID since 7/5/22.
Lab Results: AlkP 1651, ALT 140, Ca 12.2, Na 163-(7/5/22).
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 prostate is normal in size (0.70 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.3 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.42 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large in size measuring 1.05 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 0.82 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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. No focal parenchymal abnormalities are visualized.

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are two mass lesions visualized in the liver. A smaller hyperechoic, somewhat poorly defined mass effect deep to the gallbladder is noted, measuring 5.32 cm x

2.59 cm. There is a larger, more irregular caudal mid hepatic, partially cystic mass measuring 9.16 cm x 5.8 cm.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris present, but early organization of this debris is consistent with an early mucocele. There is no evidence of bile duct dilation.

Gastrointestinal

The stomach contains a large amount of mildly shadowing ingesta. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

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. Jejunum wall measured 0.32 cm. 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 normal and isoechoic to surrounding 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, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

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

ULTRASONOGRAPHIC FINDINGS

- Heterogeneous, irregular liver with two mass lesions – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The larger cystic caudal mass effect is more concerning due to its size and irregular texture. Consider a fine needle aspirate. Sampling of the other mass lesion would be difficult. These lesions could represent benign or neoplastic lesions.

- Large distended gallbladder with a large amount of debris and early organization into an early mucocele. Recommend treatment for cholecystitis and close monitoring for progression of this lesion.

- Large amount of shadowing ingesta within the gastric lumen – Correlate with feedings history and abdominal radiographs. If adequately fasted then consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none visualized).

- Bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia,

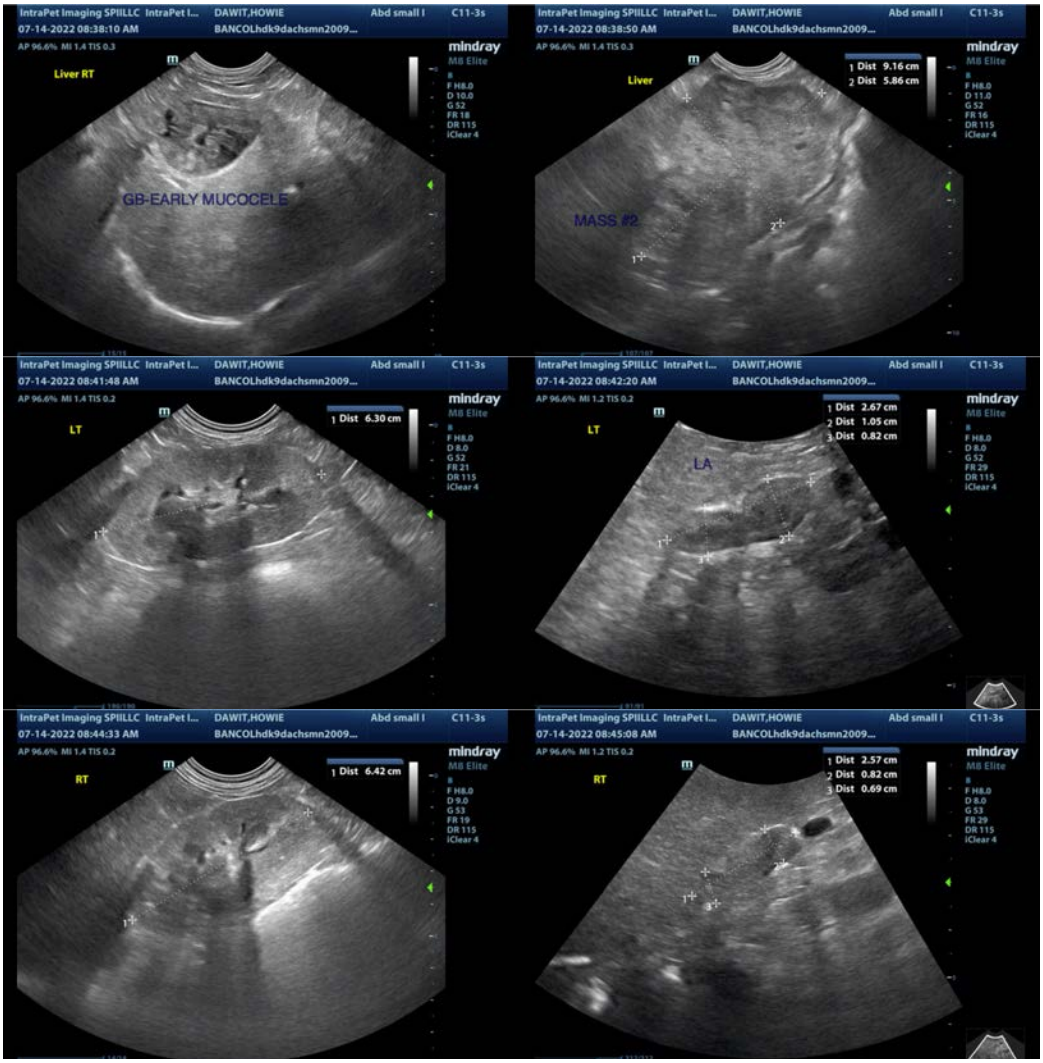
inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

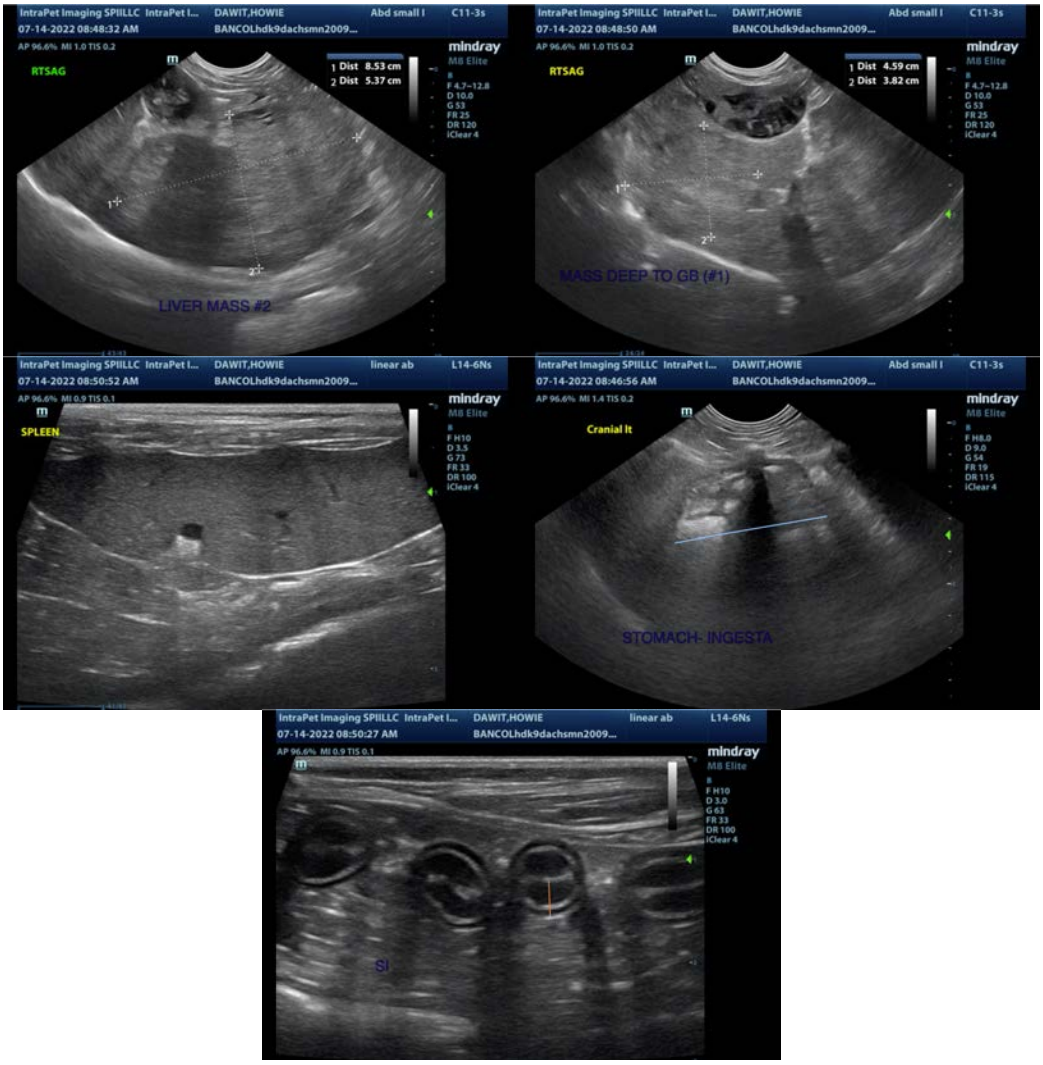
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is unknown if the liver enzyme elevations are due to the mass lesions within the liver, or due to the changes observed in the gallbladder. Recommend medical management for cholecystitis with Ursodiol, antibiotics, Denamarin, and close monitoring, as this could progress into a surgical lesion. Options moving forward regarding the mass lesions include a fine needle aspirate of the more caudal mass lesion, and a contrast CT scan to further evaluate for the nature of these lesions and possible surgical resection. The gallbladder could be evaluated at the same time with the possibility of resecting one or both mass lesions and removing the gallbladder. Alternately, these lesions can be monitored with ultrasound for progression and change.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

There is a moderate amount of soft shadowing material within the gastric lumen. This has the appearance most consistent with ingesta. Correlate with feeding history. If the patient was adequately fasted, consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none observed).





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.

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