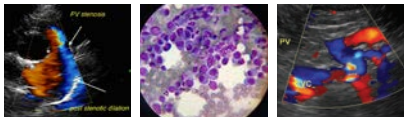
IMAGING PERFORMED BY

IntraPet.com



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DATE

9/14/21

PATIENT

Jake Pontown

SPECIES

Canine

BREED

Husky X

SEX

Neutered Male

AGE

2012

WEIGHT

54.6 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Care Center

REFERRING VET

Dr. Anderson

INVOICE

25384

PRESENTING CLINICAL SIGNS

History: Has been vomiting for a couple weeks now. Decreased appetite, drinking more.
Current Medications: Denamarin lg dog 30ct., started 8-20.
Cerenia 60mg SID for 4 days starting 8-20.
Lab Results: Alkp, ALT and Chol levels are elevated.
Radiographs: lat/VD radiograph:enlarged liver, unable to visualize spleen, very pronounced pylorus, material in stomach
Date of Previous IntraPet Ultrasound: No previous
Sedation: Sedated prior to arrival.
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 (1.2 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 (6.11 cm). Overall echogenicity is normal with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Non-obstructive nephroliths are noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.9 cm). Overall echogenicity is normal with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Non-obstructive nephroliths are noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.77 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 normal in size measuring 0.61 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 heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic nodule towards the diaphragmatic surface on the right side of the liver, measuring 2.9 cm x 4.82 cm. There is another hyperechoic, solid mass lesion with somewhat

ill-defined margins and mild cystic inclusions, which is located on the left side of the liver measuring 4.6 cm x 5.0 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 significantly dilated with fluid and irregular shadowing material, most consistent with normal ingesta and gas. The visible portions of the stomach measure at a normal thickness of <0.7 cm with some variability due to the presence of reugal folds. In these areas, the gastric wall layering is adequate, and there is no impression of reduced peristaltic activity. Visualization of the pyloric region of the stomach is greatly impaired due to shadowing, and visibility is limited.

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. Duodenum wall measured 0.36 cm. Jejunum wall measured 0.31 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.

PRIMARY FINDINGS

- Large, heterogeneous liver with two hyperechoic ill-defined 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.

- Dilated ingesta-filled stomach despite fasting – Differentials include delayed gastric emptying or a partial/complete obstruction. Unfortunately, visualization of the pylorus was greatly impaired.

SECONDARY FINDINGS

- Mildly reduced corticomedullary distinction with non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

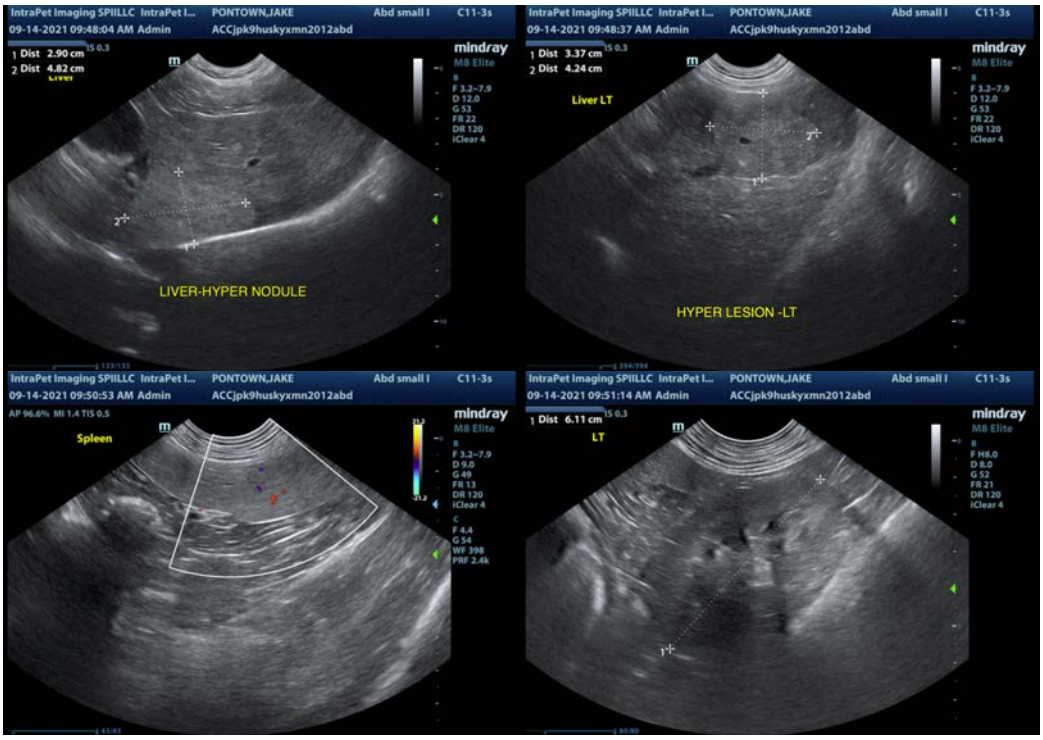
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

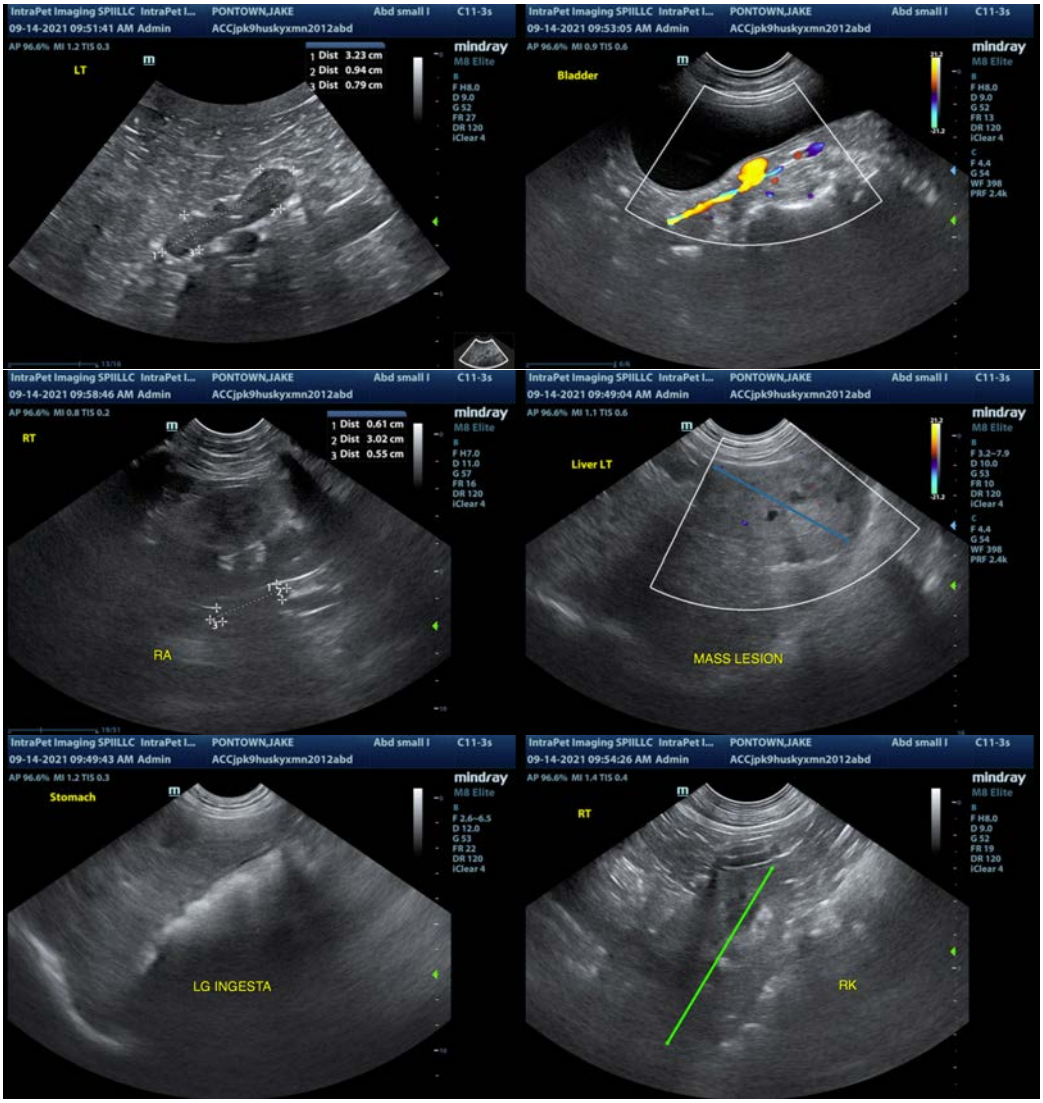
The liver parenchymal changes are relatively non-specific, but there are two focal mass lesions observed. The lesion on the right is deep and would be difficult to reach, but the left-sided lesion is a little more distinct with obvious vascular blood flow, and would be possible to fine needle aspirate. Concern is higher for this lesion to be a cancerous lesion due to its appearance (blood flow pattern), although hyperechoic nodules in general tend to be slightly less concerning. Options for moving forward regarding the liver masses include:

- Fine needle aspirate of liver parenchyma +/- left-sided liver mass
- Liver function test
- CT scan of liver to further evaluate for possible surgical intervention

If the ALP has been a longstanding elevation, this could be independent of the lesions observed, or they could be benign lesions. Recommend 3-view thoracic radiographs and further evaluation.

The stomach is dilated with irregular material, which somewhat has the consistency of kibble, but it is difficult to know for sure. Per the history, this dog was adequately fasted, which causes concern or possible outflow tract obstruction (partial or complete), or delayed gastric emptying. Unfortunately, visualization of the stomach was greatly impaired by the shadowing material. Consider a small dose of promotility medication and a longer fast, and reevaluation with radiographs +/- ultrasound to reevaluate. If vomiting persists and there is concern for full obstruction, consider surgical intervention with GI biopsies and stomach biopsies. If this can be combined with evaluation of the liver, recommend referral to a veterinary surgeon.





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.

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