

**DATE PRESENTING CLINICAL SIGNS**

7/31/23

PATIENT

Bandit Tsakalas

History: Presented on 6/7/23 for Anorexia, diarrhea, painful abdomen (over bladder region), inappetence x 3 days, which resolved with treatment. Abd rads were taken which revealed incidental suspected liver mass and multiple bladder stones. Pet has a history of severe, intermittent diarrhea - has been on Royal Canin GI low fat diet for years.

SPECIES

Canine

BREED

Husky

Current Medications: Gabapentin 300mg PRN, Dasuquin advanced chew daily, Provable forte -1 capsule daily

Lab Results: Hypercalcemia, isothermia

Radiographs: Hepatomegaly/ suspect liver mass, Bladder stones

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Torbugesic IV.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

SEX

Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

4/12/12

Urinary System

Urinary bladder is adequately distended with anechoic contents primarily, as well as a large amount of mineral/sand debris settled along the dependent wall. No masses or distinct cystoliths are observed, however, tiny punctate cystoliths accumulated within the debris cannot be definitively ruled out. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

WEIGHT

80 Pounds

The prostate is normal in size, echotexture and echogenicity for a neutered male.

INTERPRETED BYBeth Johnson, DVM
DACVIM

Left kidney is normal is size (6.98 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Right kidney is normal is size (6.61 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

HOSPITAL NAMEHeart +Paw Fells
Point**Adrenal Glands**

Left adrenal gland is normal in size (0.7 cm at cranial pole and 0.61 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.44 cm at cranial pole and 0.53 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Kraselski

Spleen

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

INVOICE

23727

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion. No discrete mass is visible in these images at this time, however, the mid caudal liver is slightly irregular and subjectively mildly more

heterogenous than the remaining liver with slightly rounded edges and could be an emerging mass vs a more discretely rounded lobe.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia. An emerging mass, including nodular hyperplasia, an adenoma/hepatoma, hepatocellular carcinoma, round cell neoplasia, etc., can't be definitively ruled out but is not discretely visualized in these images at this time.
- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Scalloped spleen – can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
- A large amount of mineral/sand urinary bladder debris with tiny cystoliths unable to be ruled out.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

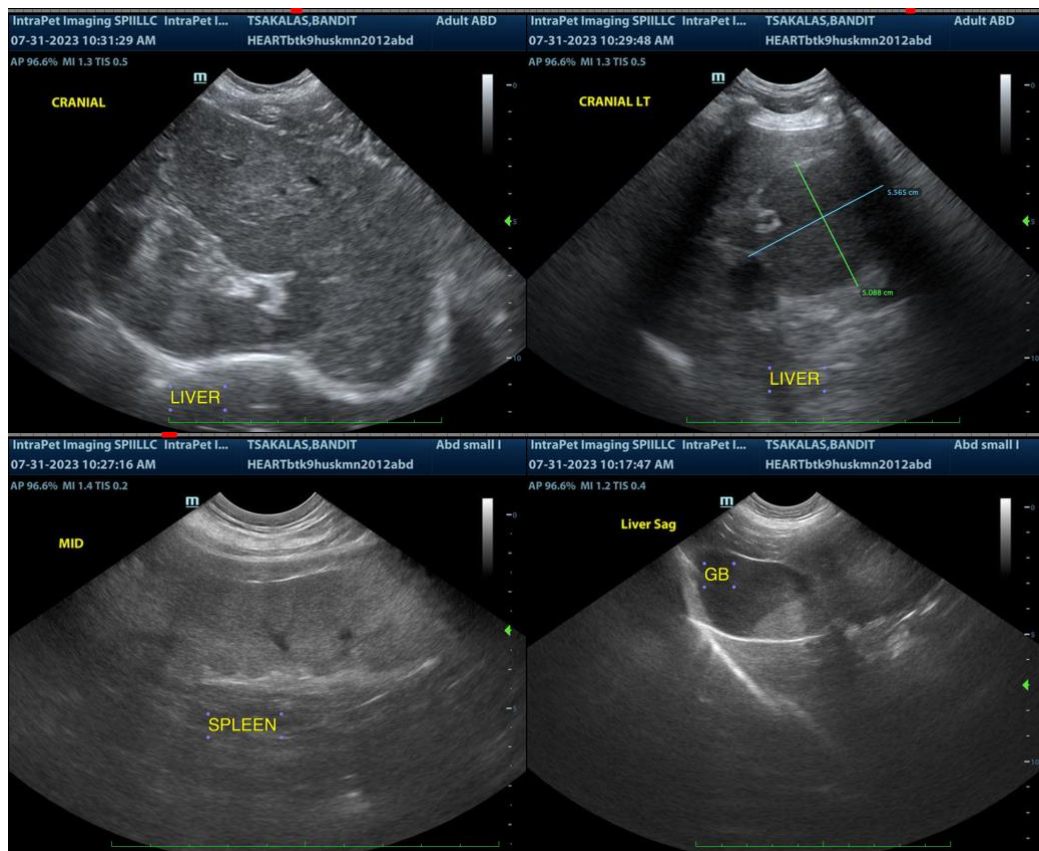
Further evaluation of this patients reported hypercalcemia is recommended, beginning with a malignancy panel to include PTH, PTHrP, and ionized calcium.

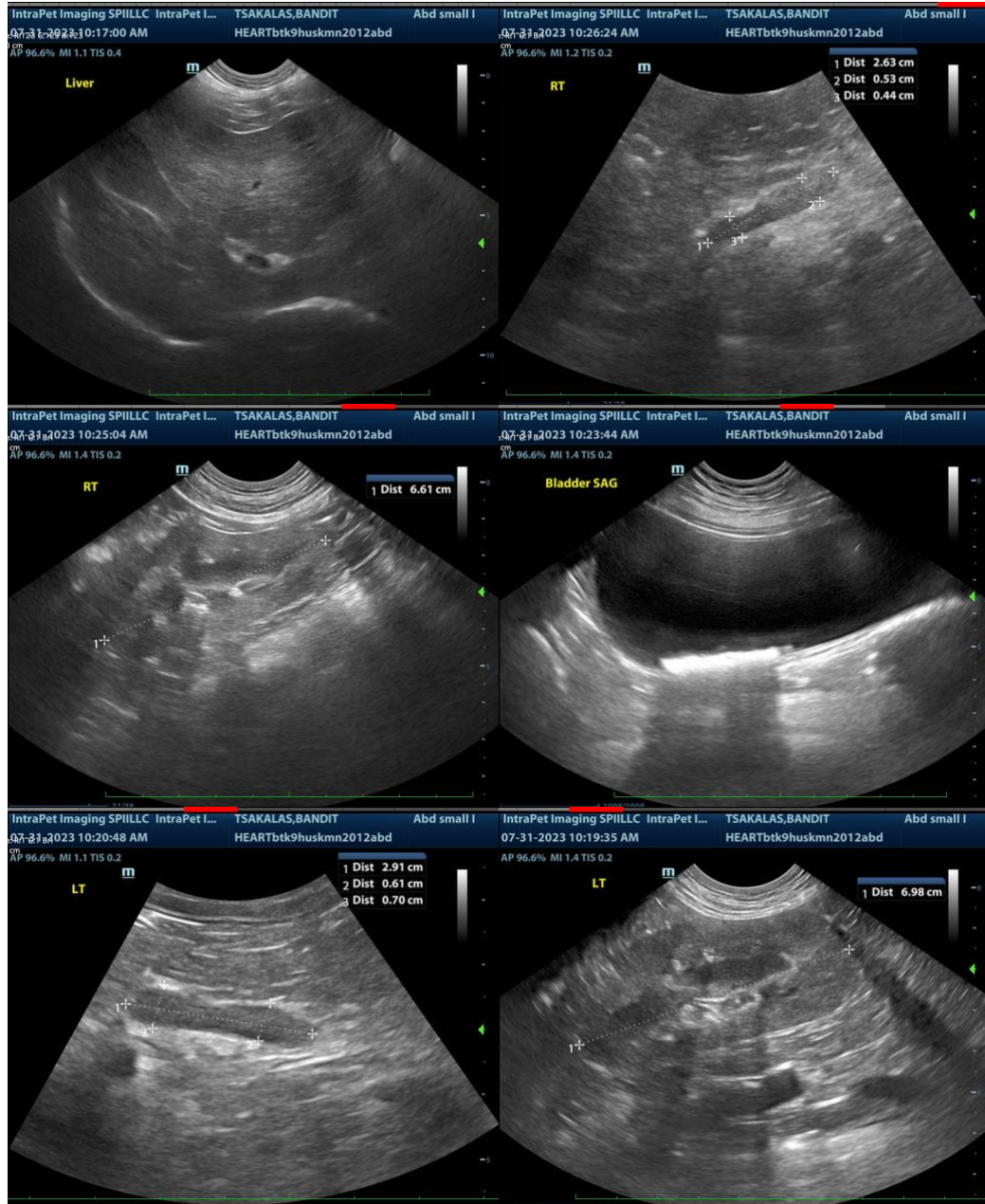
In the meantime, if not recently evaluated, a thorough rectal and perianal exam is recommended, as is thorough palpation of peripheral lymph nodes.

Pending results, given the concurrent gastrointestinal signs, with the hypercalcemia, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

Given the hypercalcemia, especially if the malignancy panel results are suggestive of hypercalcemia of malignancy, fine needle aspirates of the mid caudal liver and spleen could be considered if patients coagulation status is appropriate.

There is not an intraabdominal ultrasonographically visible explanation for this patients reported pain in these images at this time, therefore, further evaluation of concurrent spinal/neurologic/orthopedic disease could be considered.





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.

Beth Johnson, DVM DACVIM

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