

**DATE PRESENTING CLINICAL SIGNS**

10/11/22 Constipation/vomiting, hunchback - defecating small amounts for the last year. Rectal exam = filled with mulch, blood from rectum.

PATIENT

Patti Shkor Current Medications: Metoclopramide 10mg 1/2 po q 6-8hrs
Lab Results: Increased CA- R/O hyperparathyroidism, neoplasia, vit d toxicity, idiopathic. Increased GLOB- R/O inflammation, neoplasia
Radiographs: See attached.

SPECIES

Canine Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

BREED

Corgi X

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Spayed Female

AGE

7/5/14

The right kidney is normal in size (5.98 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.

WEIGHT

37 Pounds

The left kidney is normal in size (6.08 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.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

The right adrenal gland is normal in size (2.4 cm long x 0.62 cm at the cranial pole and 0.65 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Rachel Brillhart RDMS

The left adrenal gland is normal in size (2.3 cm long x 0.49 cm at the cranial pole and 0.67 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Festival Vet Clinic

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

REFERRING VET

Dr. Ullman

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A 1.3 cm hyperechoic nodule is present in the caudal liver. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

41981

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 mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

A prominent hypoechoic medial iliac lymph node is noted.

ULTRASONOGRAPHIC FINDINGS

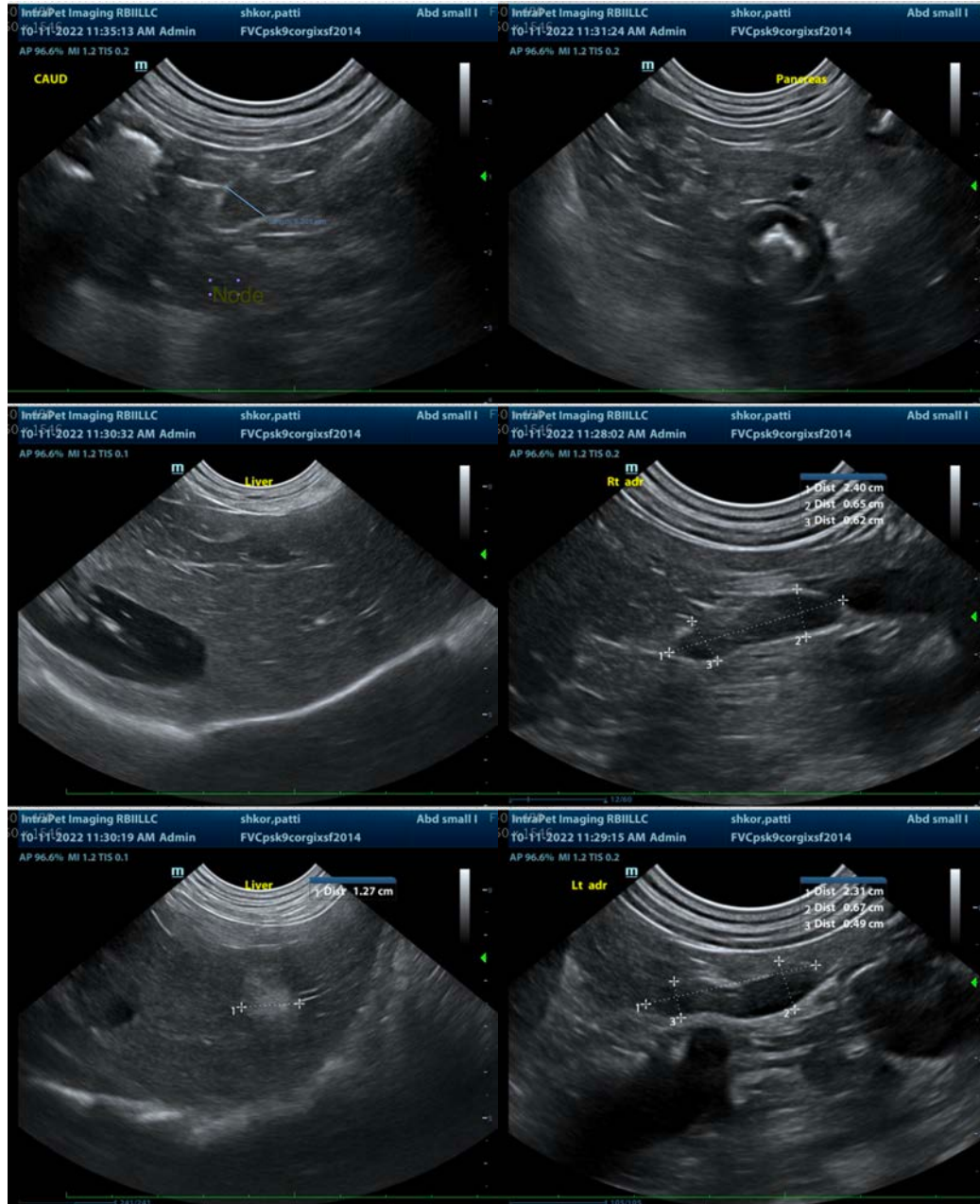
- **Liver nodule** – Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.
- **Pancreatic age-related remodeling** – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- **Medial iliac lymphadenopathy** – Rule outs include both reactive lymphadenopathy as well as infiltrative neoplasia and cannot be differentiated without tissue sampling.
- **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.

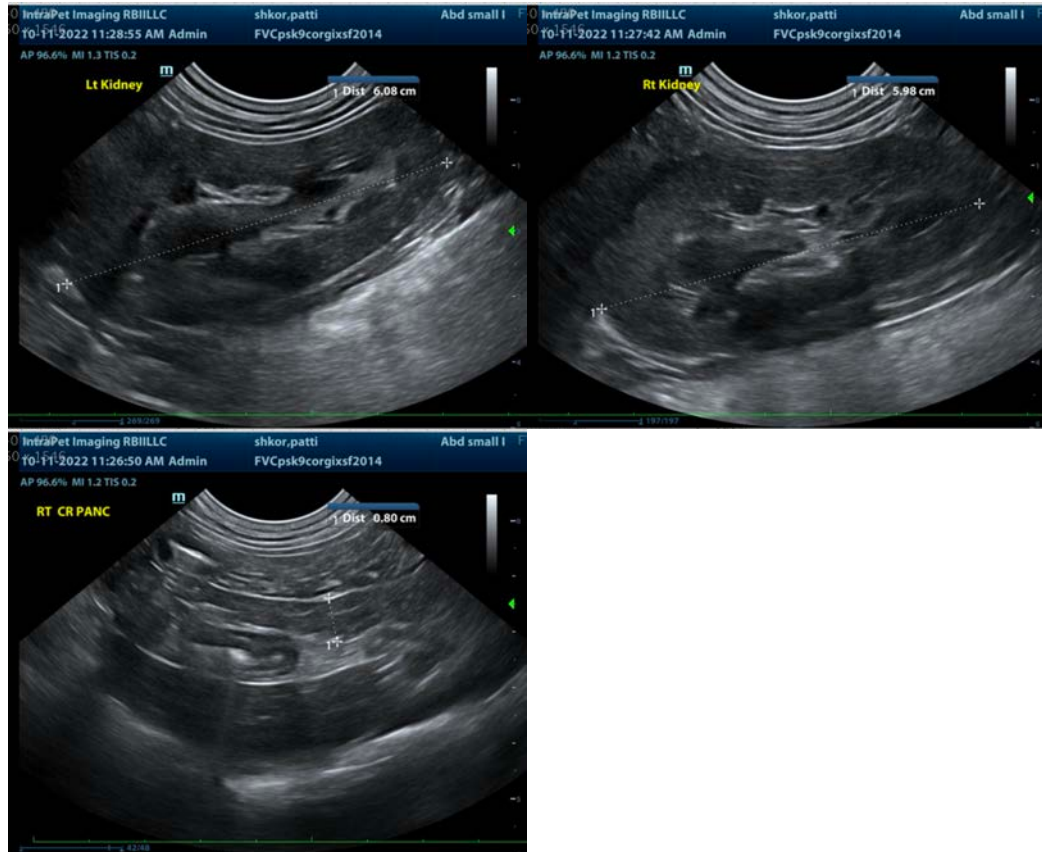
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no ultrasonographically visible cause for this patient's reported hypercalcemia. Given the low normal PTH as well as 0 PTHrP, normal baseline cortisol, etc., differentials include types of neoplasia that don't result in hypercalcemia via a PTHrP mechanism, potentially an osteolytic process, Vitamin D toxicity, and/or infectious disease/granulomatous disease.

Given this patient's reported constipation and hematochezia as well as the medial iliac lymphadenopathy, recommendations include palpation of the anal sacs to ensure there is not an anal gland tumor, and then if

another cause for the hypercalcemia can't be found with further evaluation of the bones, further workup of geographically appropriate infectious disease, etc., a colonoscopy may be warranted with biopsies for further evaluation. If the workup described above still doesn't result in a diagnosis, emerging or early hyperparathyroidism could still be considered, and recheck PTH could be considered.





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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