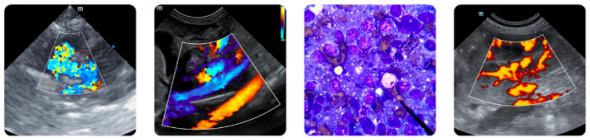


PATIENT

Penny Friars

SPECIES

Canine

BREED

German Shepherd Mix

SEX

Spayed Female

AGE

8 years 7 months

WEIGHT

50.4

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Heather

HOSPITAL NAME

Animal Care Clinic of Flanders

REFERRING VET

Dr. Hallihan

INVOICE

11097

DATE

1/13/2026

PRESENTING CLINICAL SIGNS

Repeated high ionized calcium.

Abnormal PE/Chem/CBC/UA Results: p02 - 185.3(hi), 02sat 99.6(hi), ca++ 1.47 (hi) u/a -PH 7.463.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is unable to be visualized in these images. Suspect urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or definitive cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. In the face of urinary signs and/or suspected urinary bladder pathology, reassessment after complete filling is recommended.

The right kidney is normal is size (5.9 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.

The left kidney is normal is size (5.8 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.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Left adrenal measures 1.2 cm at the caudal pole and the cranial pole is unable to be well visualized. Right adrenal 0.98 cm at the cranial pole and 1.1 cm at the caudal pole.

Spleen

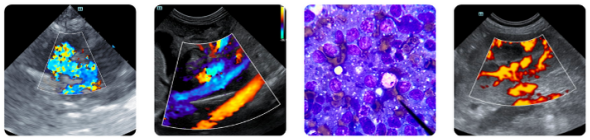
Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a diffusely coarse/heterogenous echotexture. No discrete sizable focal nodules or masses are observed. Splenic vasculature appears normal.

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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is mildly thick, hyperechoic and irregular with subjectively benign polypoid changes. Infiltrative neoplasia cannot be ruled out but is considered less likely. There is no evidence of effusion or inflammation.

Gastrointestinal



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The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted. 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreas that is observed 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 visible free peritoneal effusion noted in these images.

Medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

- Significantly reactive medial iliac lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Coarse splenomegaly – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- Bilateral adrenomegaly – In a patient diagnosed with hyperadrenocorticism, this finding is most consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism. This finding can also be seen with stress and/or normal patient variant. Interpret in combination with clinical signs of hyperadrenocorticism and/or other adrenal disease.
- Gallbladder polypoid hyperplasia pattern – This change is most consistent with benign polypoid changes. Infiltrative neoplasia cannot be ruled out but is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A malignancy panel (PTH, PTHrP, iCa) to Michigan State College of Veterinary Medicine is recommended for further investigation of the reported hypercalcemia.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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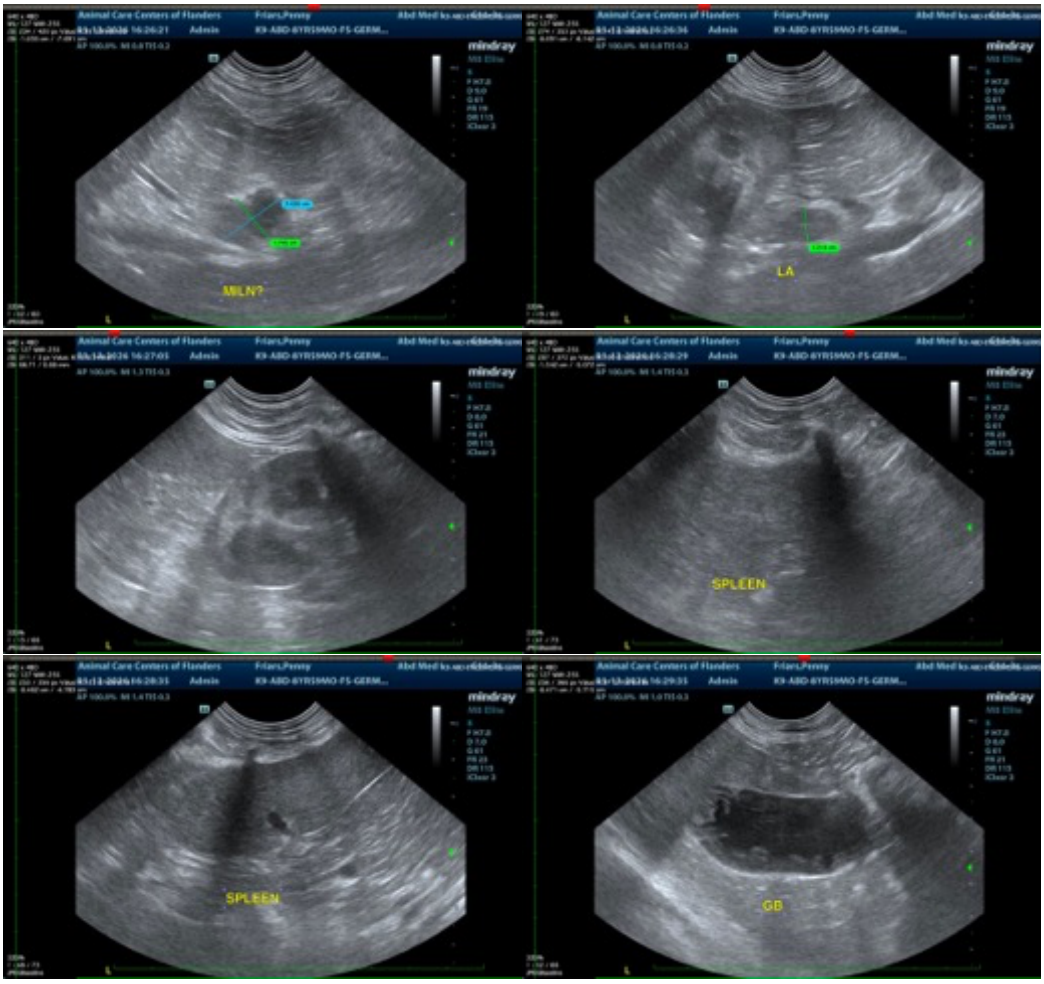
Fine needle aspirates of the spleen +/- medial iliac lymph nodes are recommended if they can safely be reached and if patient's coagulation status is appropriate.

In the meantime, if not already evaluated, a thorough rectal and perianal exam is recommended. As is thorough peripheral lymph node palpation.

The bilateral adrenomegaly is likely unrelated to patient's presenting complaint of hypercalcemia and likely does not warrant further workup until after diagnosing and ideally treating the hypercalcemia, and at that point only if patient is demonstrating clinical signs. Having said that, a blood pressure is recommended if not recently evaluated.



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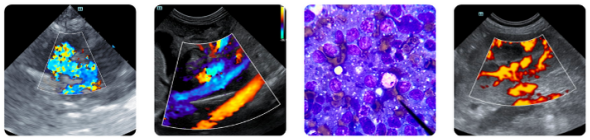

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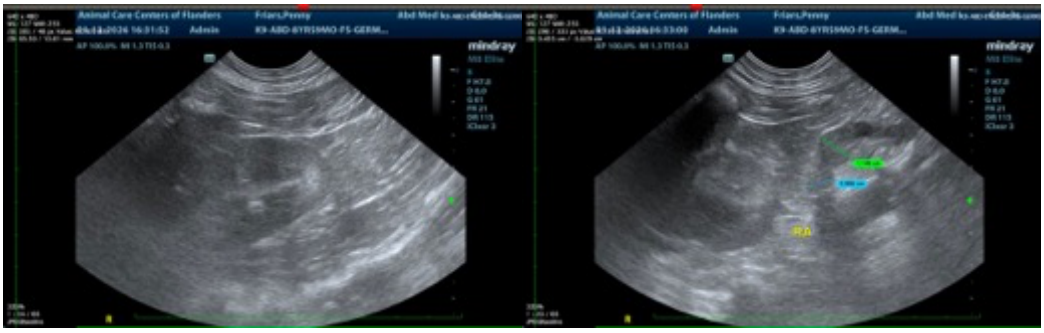

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
info@sonopath.com