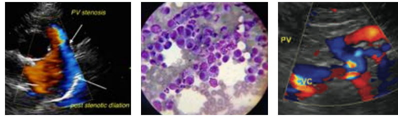


DATE
2/8/22

PATIENT
Abby Hester

SPECIES
Canine

BREED
Mix

SEX
Spayed Female

AGE
2/7/11

WEIGHT
42.2 lbs

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

HOSPITAL NAME
Homeward Bound VS

REFERRING VET
Dr. Keil

INVOICE
95885

PRESENTING CLINICAL SIGNS

History: Hx: Os note lateral abdomen mass ~2yrs ago, since this morning acutely swollen and painful, never tested before. No PU/PD. No v/d/c/g/s. Eating/Drinking well. PE: INTEG: L Lateral abdomen, caudal to paracostal; swollen, firm, warm, painful, ~15x10x10cm mass. EENT: Dental Dz 0/4, MS: 6/9, CV: WNL, RESP: WNL, ABD: NSF, G/U: NSF, NEURO: WNL, LN: WNL.
Current Medications: Buprenorphine 0.6ml SQ for pain.
Lab Results: Complete CBC/Chem: NSF. Digital FNA Pending, In house suspect spindle cells. InHouse Complete: Min elevation in ALP.
Radiographs: Rad Abdomen (2 view): Min mineralization, disruption to the abdominal wall
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall appears normal in thickness. The area of the trigone, ureteral papillae and proximal urethra appear normal with no evidence of a mass effect. There are multiple, shadowing mineralization visualized in the dependent portion of the urinary bladder. One measured 0.65 cm in diameter. This is most consistent with a bladder stones.

The left kidney has a normal shape and size (4.87 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Non-obstructive nephroliths were noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.61 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mineralization was visualized at the caudal pole. This is most consistent with a nephrolith or previous infarct. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

Adrenal Glands

Unable to visualize the left adrenal gland due to the patient's discomfort while being scanned in this area.

The right adrenal gland is normal in size measuring 0.59 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 subjectively normal in size, and 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 are numerous, ill-defined, hypoechoic nodules visualized diffusely within the hepatic parenchyma and varied in size from 0.25-1.5 cm. Some of the nodules visualized do appear to

disrupt the hepatic margins and some have somewhat of a target-like appearance. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 prominent and mottled compared to the surrounding isoechoic 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

There is a very large subcutaneous mass effect visualized in the left side of the lateral abdomen. This mass measures greater than 16 cm in length, 7.9 cm in depth and 12 cm in width. It is largely solid with mixed echogenicity and surrounding subcutaneous tissues appear hyperechoic and inflamed with a scant amount of free fluid. There is no obvious penetration of the body wall, but this possibility cannot be 100% excluded based on ultrasound alone.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Large, mixed echogenic subcutaneous mass effect with surrounding inflammation. The findings are most consistent with an inflamed benign or malignant tumor.

- Multiple mineralizations visualized within the bladder lumen. This is most consistent with calculi. Correlate findings with radiographs, urinalysis and urine culture findings.

- Heterogenous, irregular liver with numerous nodules some of which deformed the hepatic margins and are consistent with target lesions. These lesions could represent benign or neoplastic change. Some of the changes observed could be concerning for a neoplastic process.

- Prominent, mottled pancreas. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Moderate gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths and suspected right renal infarct. The bilateral renal findings are consistent with age-related change. 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

There was no obvious evidence of body wall invasion from this mass. I suspect a CT scan would be necessary to fully rule this out. There is some concern for neoplastic change in the liver although some benign hepatic nodules can have a relatively aggressive appearance.

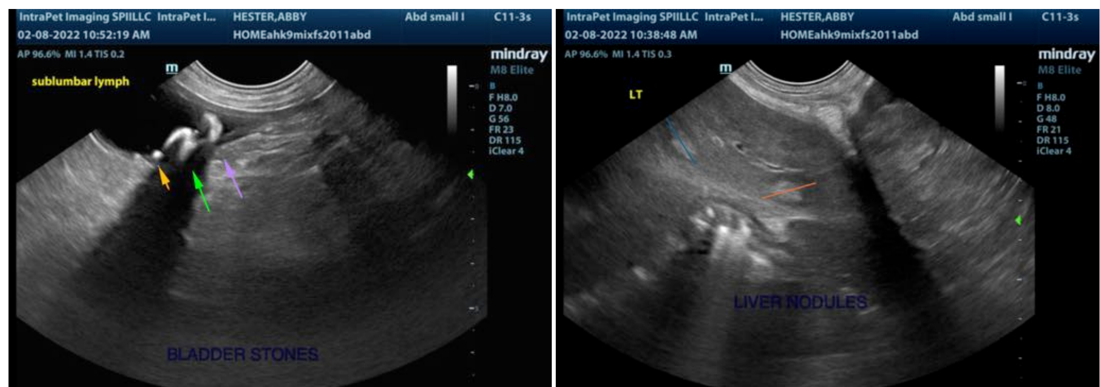
- I recommend a FNA of the subcutaneous mass to look for evidence of mast cell tumor, etc.

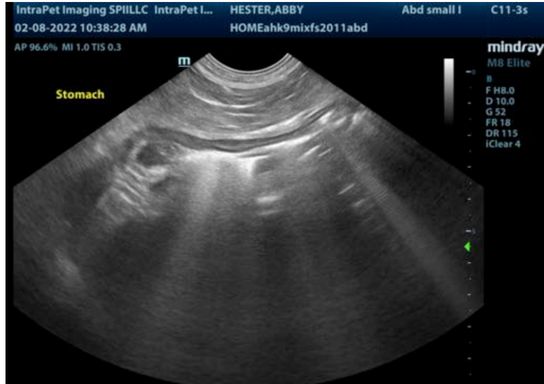
- Recommend three view thoracic radiographs.

- Consider FNA of the liver to look for evidence of metastatic neoplasia.

- If possible I recommend a CT scan for possible evaluation for surgical removal.

I suspect surgical removal of this lesion would be fairly challenging and referral to a board certified surgeon is recommended. The acute change can be due to trauma to the mass, an inflammatory neoplasm (such as mast cell tumor), infection, or invasion into local blood vessels and associated bruising and hemorrhage, etc. If a diagnosis can be obtained based on FNA I recommend consultation with a veterinary oncologist regarding treatment options and prognosis.





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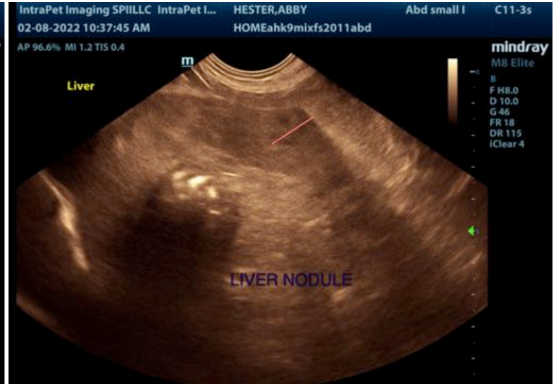
Stomach



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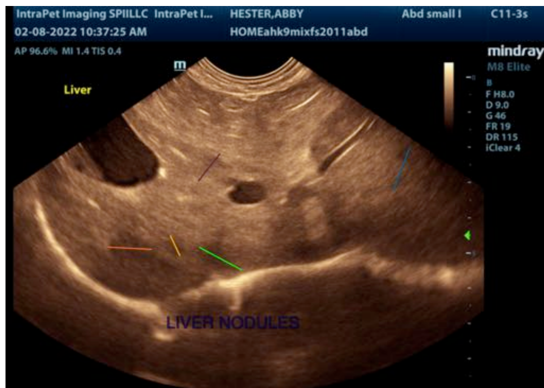
LIVER NODULE



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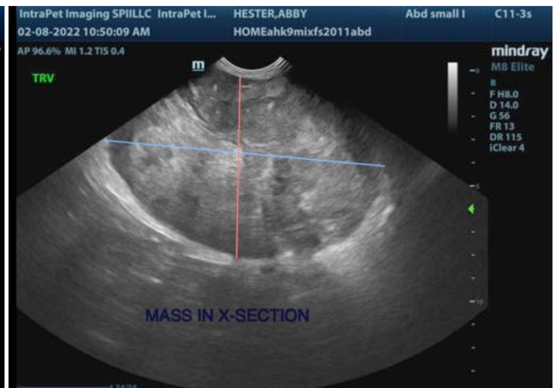
LIVER NODULES



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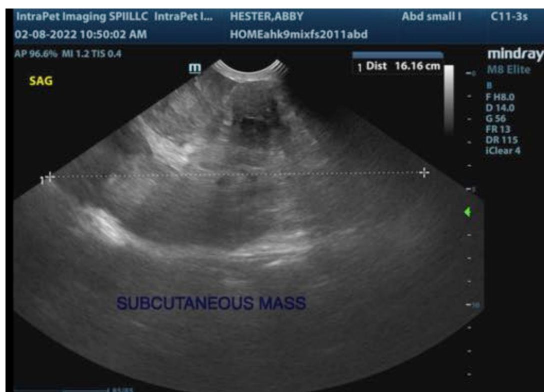
TRV
MASS IN X-SECTION



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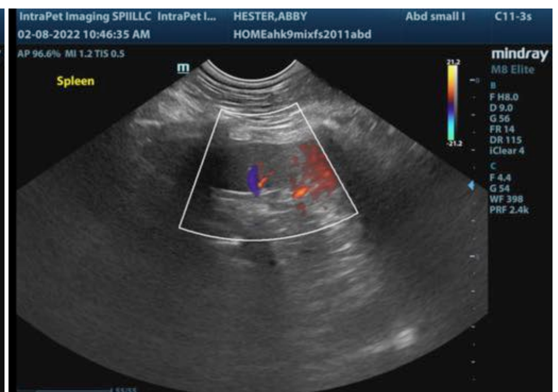
SAG
SUBCUTANEOUS MASS



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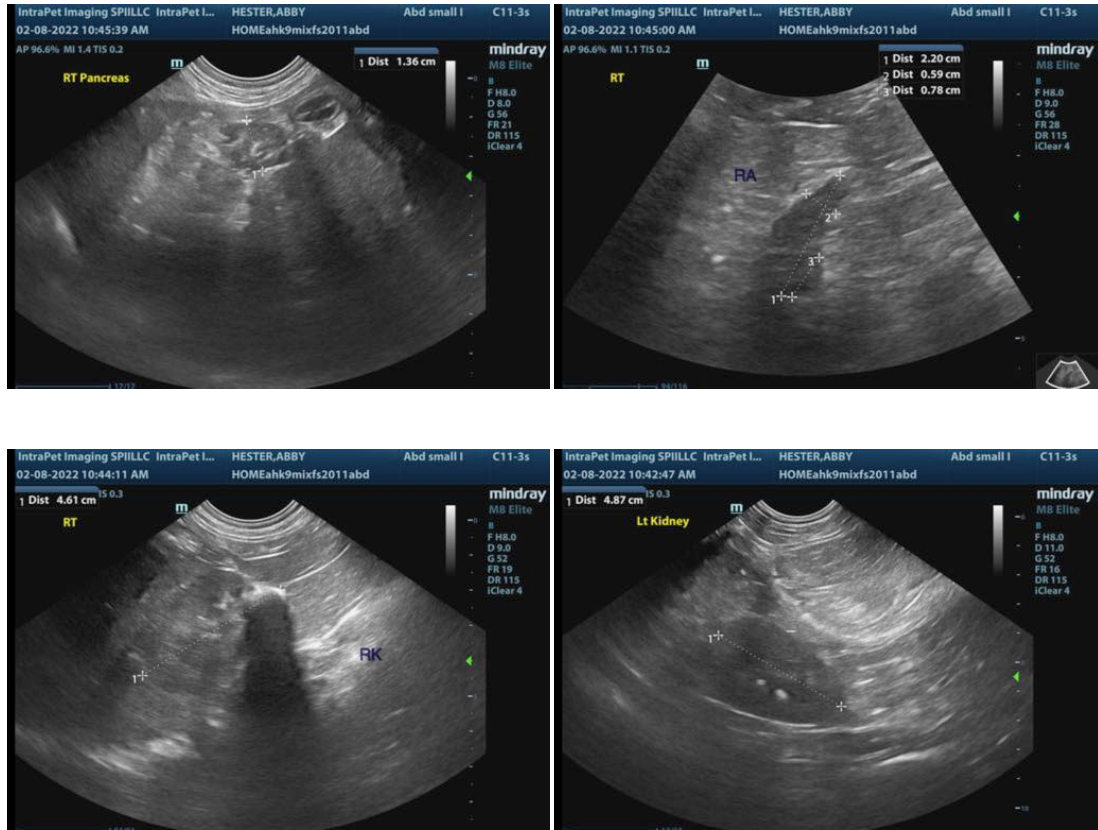
Spleen



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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