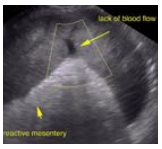
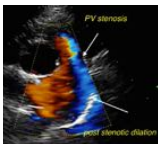
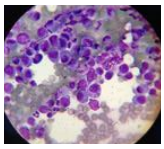
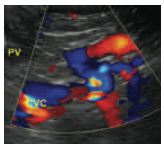
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Elwood Stewart

SPECIES
Canine

BREED
Mix

SEX
Neutered male

AGE
13 years

WEIGHT
69.8 lbs

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Scott

HOSPITAL NAME
HoHoKus VH

REFERRING VET
Dr. Scott

INVOICE
94921

DATE
1/3/22

PRESENTING CLINICAL SIGNS

1 month of coughing, drinking more, recently decreased appetite over the last 1-2 weeks.
Raspy breathing during PE but normal effort severe weight loss- 20lbs in the last year BUN 7, Na/K 27, T4 0.9, USG 1.018 Chest rads--> diaphragmatic hernia according to radiologist

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.

The prostate is mildly enlarged and measured 3.9 cm wide. The parenchyma is mildly heterogenous and relatively hyperechoic. Normal discrete margins and symmetrical bilobed shape are present.

Left kidney is normal in size (6.5 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Right kidney is normal in size (5.8 cm), shape and echogenicity. It has smooth peripheral margination and appropriate corticomedullary distinction. There is no pyelectasia noted. No mineral is observed.

Adrenal Glands

Left adrenal gland is normal in size (2.2 cm long, 0.54 cm at cranial pole and 0.65 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Right adrenal gland is normal in size (2.9 cm long, 1.4 cm at cranial pole and 0.94 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable.

Spleen

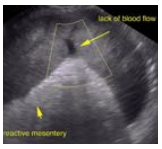
Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

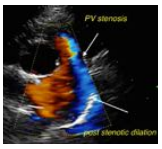
Liver

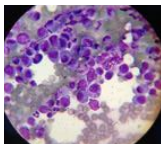
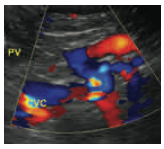
Liver is subjectively enlarged with rounded margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature appears normal. The left caudal liver is more discretely heterogenous appearing to form an early 4-5 cm focal mass. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation.

Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.





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The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

Free Abdomen

Lymph nodes are normal with no observed enlargement. The echogenic interface between the liver/diaphragm and lung, which indicates a diaphragm, is present and appears to be continuous in some images; however, complete continuity of the diaphragm in the near field is not present in some images.

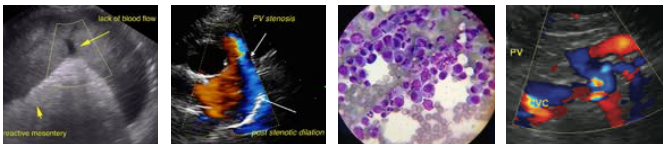
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Differentials for hepatic changes include both benign steroid (vacuolar) hepatopathy or extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia. A discrete, more nodular mass like lesion was noted in the left caudal liver. Differentials still include benign steroid or vacuolar hepatopathy, extramedullary hematopoiesis as well as infiltrative round cell or metastatic neoplasia.
- Mildly heterogenous enlarged prostate for a neutered dog. If the patient was neutered as a puppy the prostatic appearance is more concerning and further investigation, as described below is indicated.
- Possible loss of diaphragmatic continuity in the near field. This is consistent with the reported possible diaphragmatic hernia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Diaphragmatic hernia cannot be definitively diagnosed or ruled out on these images. There is no free abdominal or peritoneal fluid, which limits the diagnostic capacity of ultrasound for diaphragmatic hernias and the diaphragm appears intact in places, but cannot be completely followed continuously. Therefore, recommendations given the reported radiograph findings include a positive contrast peritoneography, which is a more sensitive diagnostic test to definitively diagnose a diaphragmatic hernia. Other recommendations given this patient's weight loss, decreased appetite include gastrointestinal malabsorption panel include a TLI, PLI, folate and cobalamin to Texas A&M GI laboratory as well as a baseline cortisol to rule out unlikely, but possible hypoadrenocorticism, which is always recommended to test with the reported GI signs despite the normal appearance of the adrenal glands. Other diagnostic recommendations given the low T4 which could be sick euthyroid include a TSH to rule out true hypothyroidism contributing to decreased appetite and PU/PD. Finally if diaphragmatic hernia is definitive diagnosed, consultation with a surgeon to discuss surgery is recommended at which time a liver biopsy of the early forming liver mass is recommended. If further information about the liver mass is elected before further pursuing a diaphragmatic hernia and/or if a diaphragmatic hernia is not definitively diagnosed a FNA of the liver mass is recommended if the



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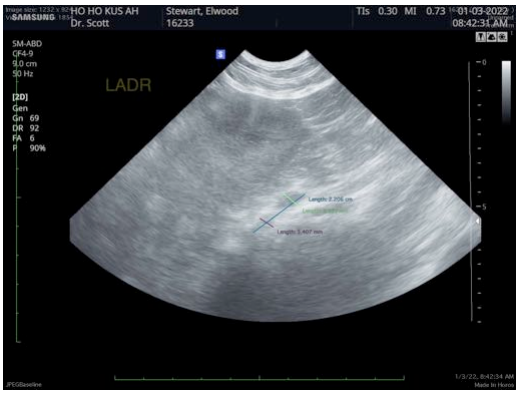
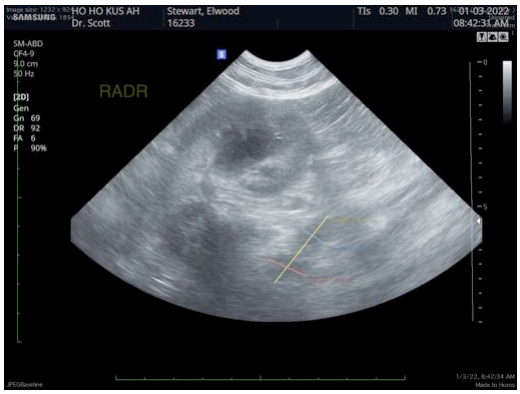
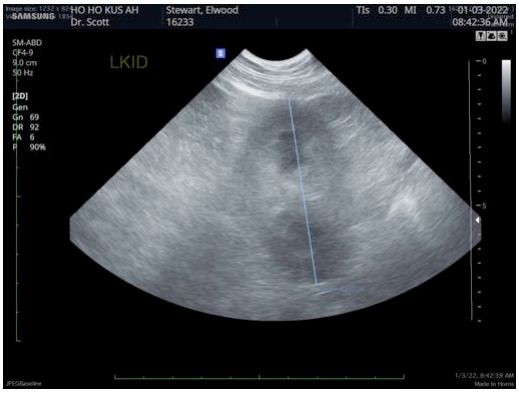
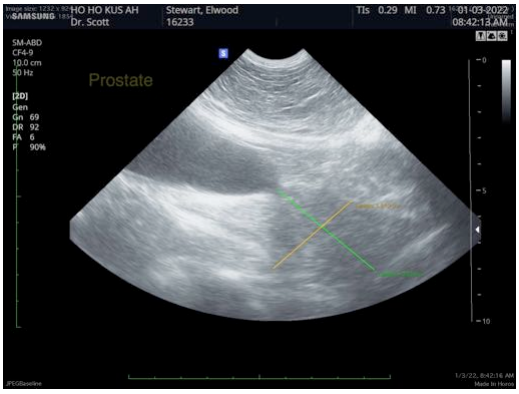
patient's coagulation status is appropriate. Also given the reported PU/PD and prostate changes urinalysis and urine culture are recommended to rule out an occult urinary tract infection. If this patient was neutered as a puppy submission of urine to look for the BRAF gene mutation, which is associated with urinary bladder cancer and/or prostatic cancer is recommended to rule that out.









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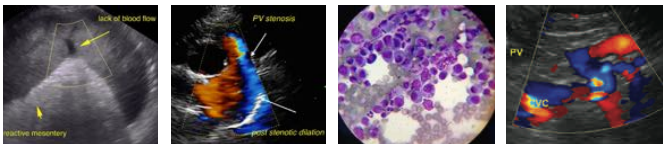

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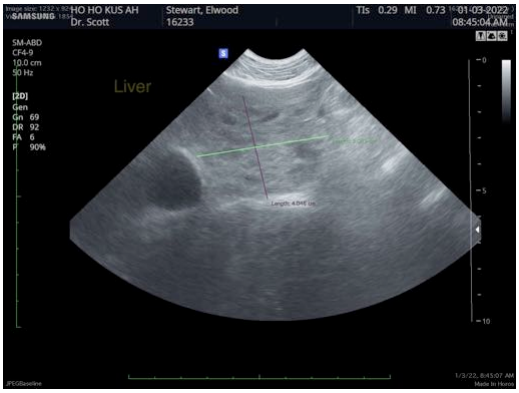

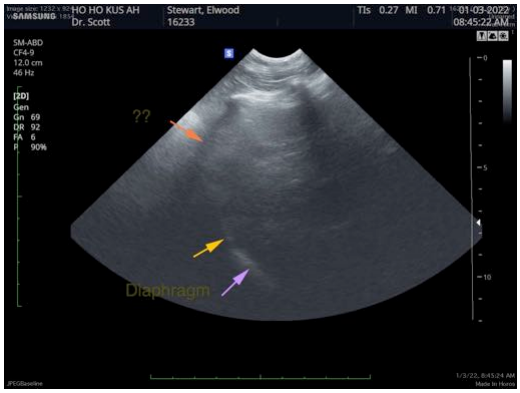

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Beth.Johnson@SonoPath.com