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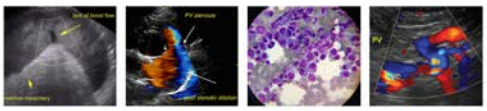

SonoPath
Clinical Sonography & Telecytology
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PATIENT

Frank Cool

SPECIES

Canine

BREED

Coonhound

SEX

Neutered Male

AGE

10 Years

WEIGHT

63.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Falmouth AH

REFERRING VET

Dr. Lilan Hauser

INVOICE

43929

DATE

7/12/23

PRESENTING CLINICAL SIGNS

Chronic diarrhea, occasionally with blood. Vomiting, decreased appetite, increased thirst. On exam today: significant muscle atrophy, increased respiratory rate and effort, mildly tachycardic. *Sedated with Dexdomitor/Alfaxan.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (0.80 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.93 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (7.64 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.79 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.89 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.

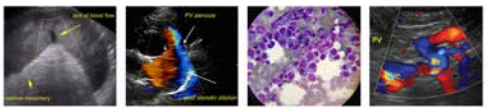
Spleen

The spleen is large. The spleen echotexture is heterogenous and severely mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. The parenchyma is severely mottled and has too numerous to count, large, discrete hypoechoic nodules throughout the parenchyma, varying in size from 0.25-1.5 cm.

Liver

The liver is large and irregular with rounded margins. The parenchyma is hyperechoic and heterogeneous in echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a mixed echogenic hyperechoic mass that appears associated with the ventral aspect of the liver.

The gallbladder lumen is moderately distended. The wall of the gall bladder is prominent, hyperechoic, and thickened, measuring 0.54 cm. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.



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Gastrointestinal

The stomach is mildly distended with some fluid and gas. No focal lesions are visualized associated with the gastric wall, but it does appear thickened and hypoechoic in some areas with reduced detail of wall layering, measuring at 0.78 cm.

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. Duodenum wall measures 0.58 cm. Jejunum wall measures 0.38 cm. 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 area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

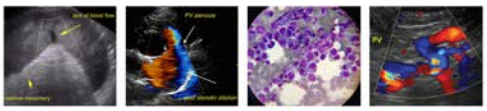
There is a small to moderate amount of free abdominal fluid and occasional prominent mesenteric lymph node. One such lymph node measures at 0.40 cm. The omentum is diffusely hyperechoic.

ULTRASONOGRAPHIC FINDINGS

- Large, irregular, nodular spleen – Findings are highly concerning for an underlying neoplastic process (hemangiosarcoma, round cell neoplasia, metastatic neoplasia, etc.), although benign differentials are possible.
- Large, rounded, irregular hyperechoic and heterogeneous liver with a mixed echogenic hyperechoic mass – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The mass lesion observed could be consistent with a primary hepatic mass lesion (adenoma, carcinoma, etc.), but is concerning for a possible neoplastic process (hemangiosarcoma, round cell neoplasia, etc.).
- Thickened gallbladder wall – I suspect this is secondary to edema and the free fluid.
- Subjectively thickened gastric wall with reduced detail of wall layering – This is suggestive and could be secondary to edema, imaging artifact, gastritis, or infiltrative disease.
- Moderate volume free abdominal fluid.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The spleen is large and diffusely nodular. The appearance of the nodules is concerning, as they are discrete and expansile, deviating the splenic capsule. Recommend a fine needle aspirate of a splenic nodule. Additionally, the liver is large and very heterogeneous with a mixed echogenic hyperechoic discrete mass effect. These findings in conjunction with the splenic lesions are concerning for an underlying neoplastic process. Consider a fine needle aspirate of both the hepatic parenchyma and the mass effect.



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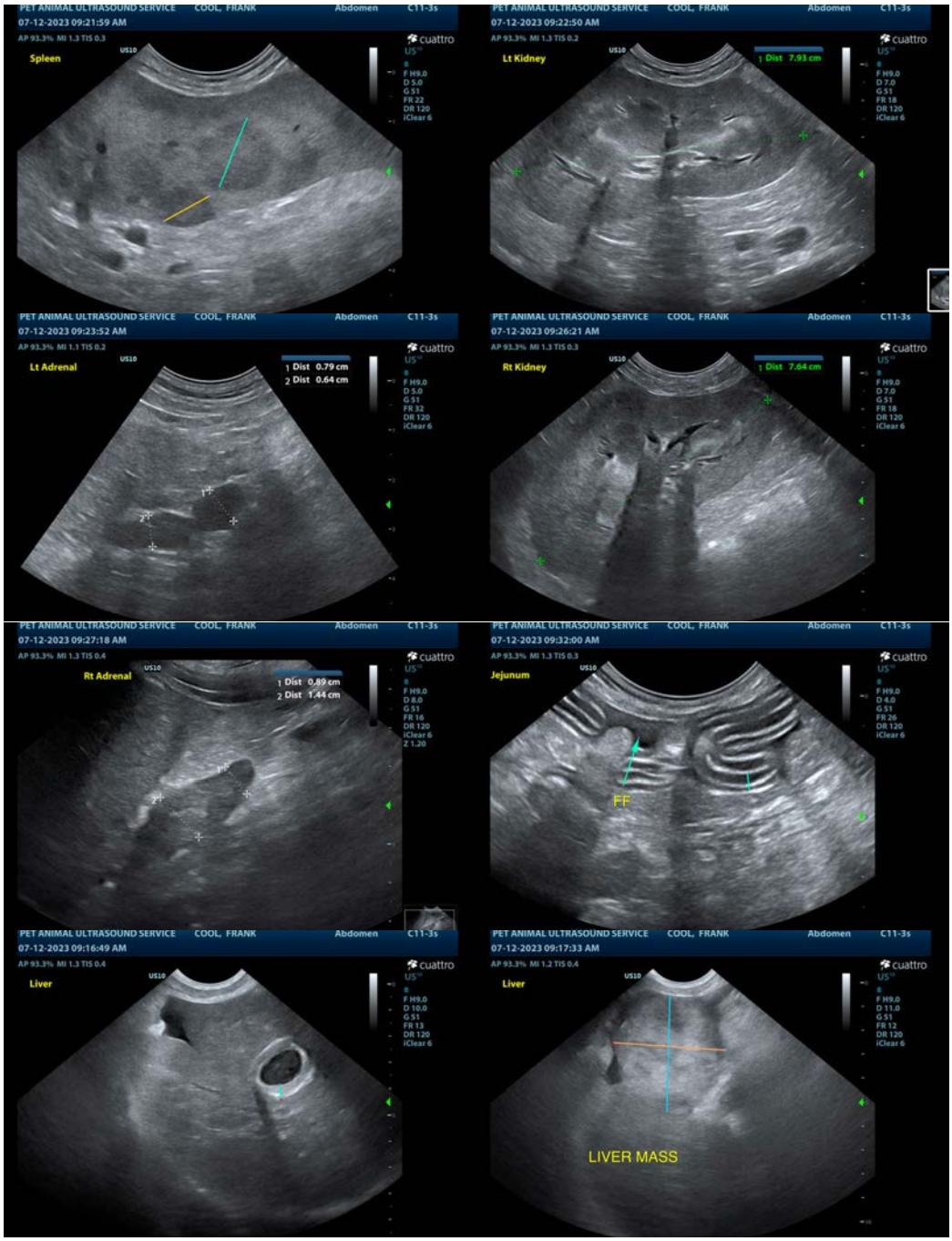
Additionally, sampling of the free abdominal fluid for fluid analysis and cytology may be helpful.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.



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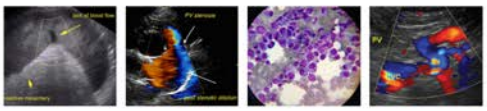

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

info@sonopath.com