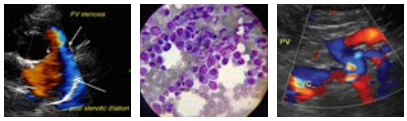
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

6/27/23

PATIENT

Benny Muller-Hinder

SPECIES

Canine

BREED

Spaniel X

SEX

Neutered Male

AGE

2/28/16

WEIGHT

43.8 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Happier at Home Mobile Vet

REFERRING VET

Dr. Haskin

INVOICE

43483

PRESENTING CLINICAL SIGNS

Acute abdominal pain, vomiting, anorexia.

Current Medications: Pimobendan 5mg BID, Spironolactone 25mg BID, Furosemide 20mg BID.
Lab Results: 6/26/23 PCV/TP 40/6.2.
Radiographs: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: IV.
Stat Report: Declined.
Imaging Performed By: Rachel Brilhart, RDMS.

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 (1.3 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 (6.24 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 (6.0 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 0.80 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 0.87 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 and irregular. The blood flow through the hilus and splenic parenchyma appears normal. There is a large, mixed echogenic, mildly cystic/cavitated mass effect that appears to be arising from the spleen measuring 9.11 cm x 0.30 cm.

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, very subtle, ill-defined hypoechoic nodules within the parenchyma. Examples measure 0.40 cm and 0.60 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder 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 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 moderate amount of free abdominal fluid. No lymphadenopathy. The omentum is diffusely irregular and hyperechoic.

Other

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

Given the current medications provided in the history, I suspect this patient has underlying heart disease. Consider a full cardiac ultrasound (if not done recently).

ULTRASONOGRAPHIC FINDINGS

- Large, mixed echogenic, mildly cavitated cranial abdominal mass (likely splenic) – A large, heterogenous mass with cavitations is present within the splenic parenchyma. The mass distorts the splenic capsule. Differentials for the mass include neoplasia (e.g., hemangiosarcoma, hemangioma), hematoma, abscess, other. A neoplastic process is favored.

- Heterogeneous liver with ill-defined hypoechoic nodules – 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 nodules observed trend toward a more benign process, but underlying neoplasia cannot be ruled out.

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Moderate fluid abdominal fluid in the abdomen – Recommend sampling to try and differentiate ascites from a hemoabdomen.

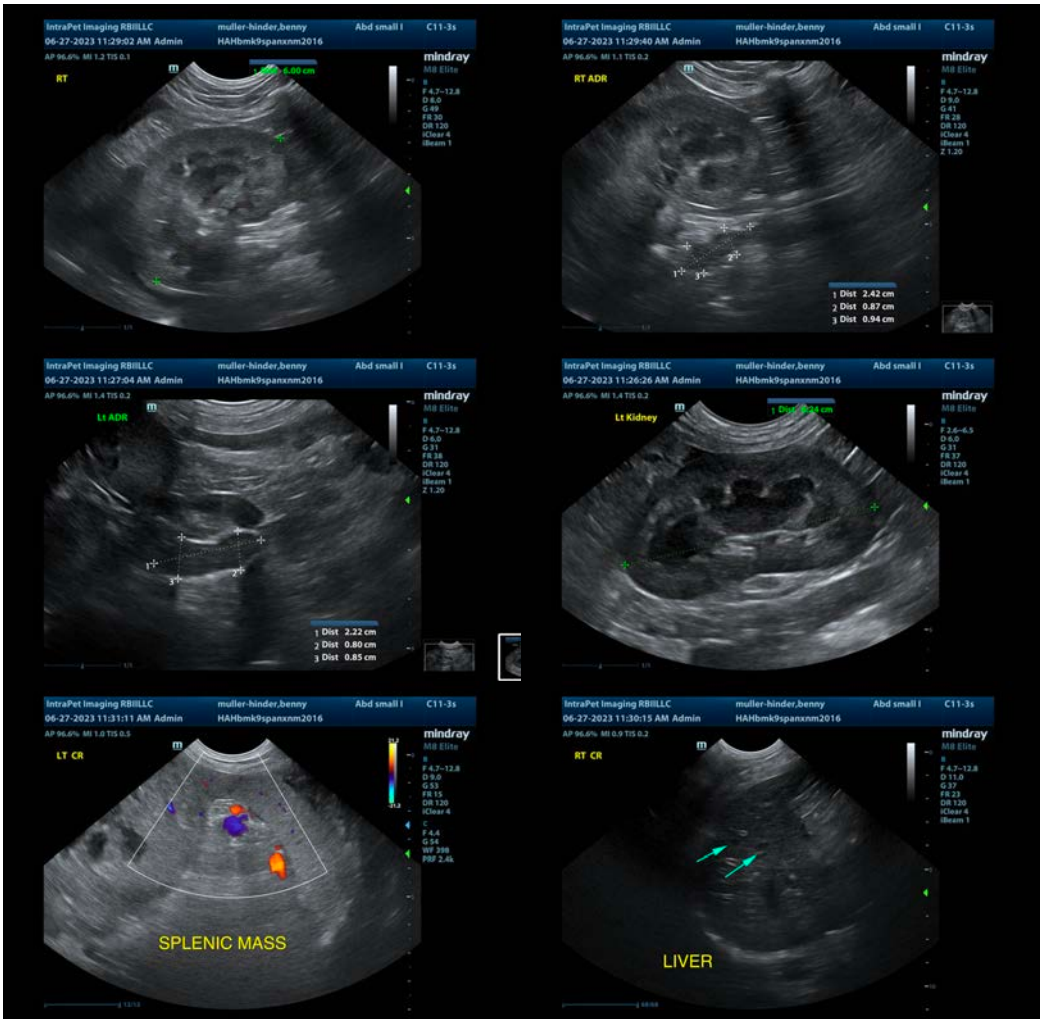
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

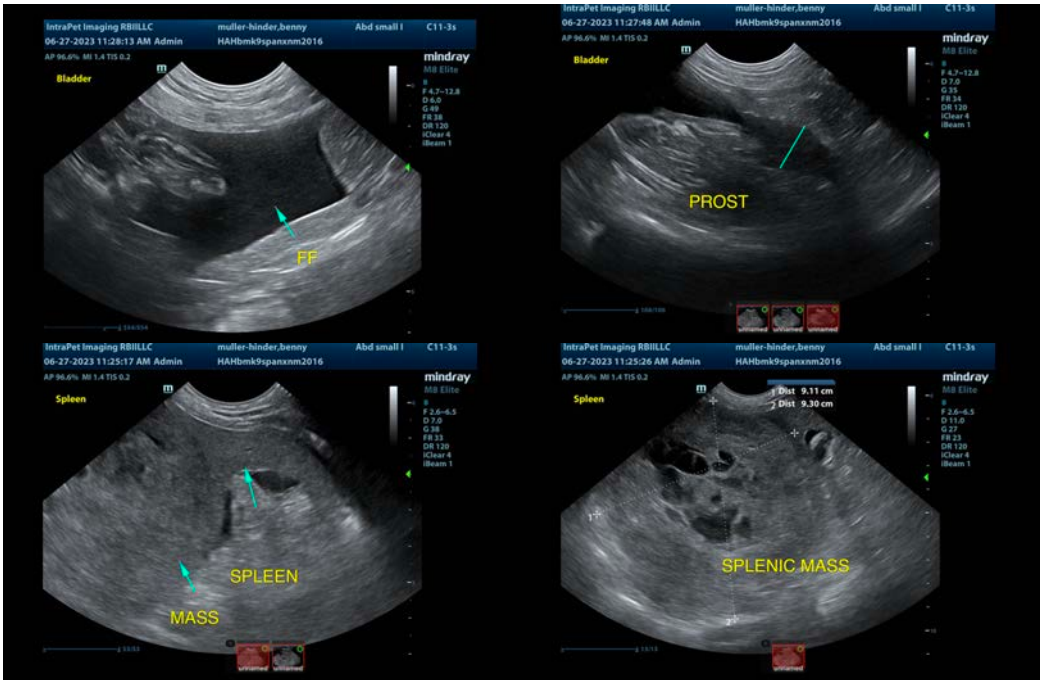
There is a large, mildly cavitated/cystic cranial abdominal mass. This appears to be arising from the spleen. There is concern for possible hemoabdomen based on the free abdominal fluid present. Recommend sampling and likely a splenectomy for both diagnostic and therapeutic purposes.

The liver appears heterogeneous with some ill-defined hypoechoic nodules. The appearance of these nodules trends towards a benign etiology, but given the abdominal mass present, metastatic lesions cannot be definitively ruled out.

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

Although a splenic mass is strongly suspected based on the images provided, a contrast CT scan could be considered for full surgical planning/confirmation of ultrasonographic findings.





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)
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