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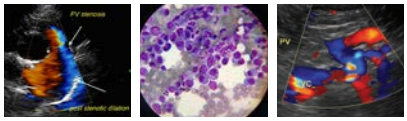

SonoPath

Clinical Sonography & Telecytology

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DATE

4/12/23

PATIENT

Cupcake Boyarsky

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Spayed Female

AGE

9/6/09

WEIGHT

6.6 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Advanced Vet Complex

REFERRING VET

Dr. Benson

INVOICE

46599

PRESENTING CLINICAL SIGNS

Dx with pancreatitis on 4/4/23, probably mass in abdomen seen on 4/6.

Current Medications: None listed.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Declined.
Stat Report: Not requested.
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 left kidney has a normal shape and size (3.16 cm) with pyelectasia at 0.45 cm. Overall echogenicity is slightly hyperechoic with poor 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.75 cm) with mild pyelectasia at 0.17 cm. Overall echogenicity is slightly hyperechoic with poor 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.57 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 0.48 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 an extremely large, irregular, mixed echogenic mass effect arising from the spleen with mild cavitation/cystic lesions. This mass lesion measures significantly >6.56 cm x 5.16 cm.

Liver

The liver is large in size, and normal in 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 hyper- and hypoechoic nodules throughout the parenchyma. Examples of hyperechoic nodules measure 1.17 cm and 0.92 cm. A hypoechoic nodule was visualized measuring 0.76 cm. These do not appear to deform the hepatic architecture.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. 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. Duodenum wall measures 0.31 cm. Jejunum wall measures 0.27 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 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.

ULTRASONOGRAPHIC FINDINGS

- Extremely large, irregular, mixed echogenic, partially cavitated/cystic splenic mass – The mass distorts the splenic capsule. Differentials for the mass include neoplasia (e.g., hemangiosarcoma, hemangioma), hematoma, abscess, other. A neoplastic process is favored.

- Decreased corticomedullary distinction in both kidneys with mild bilateral pyelectasia – The bilateral renal findings are consistent with age-related change. Pyelectasia of the kidney(s)could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

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

- 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. While the appearance of these nodules would typically trend towards a more benign process, in this situation the possibility of metastatic disease needs to be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

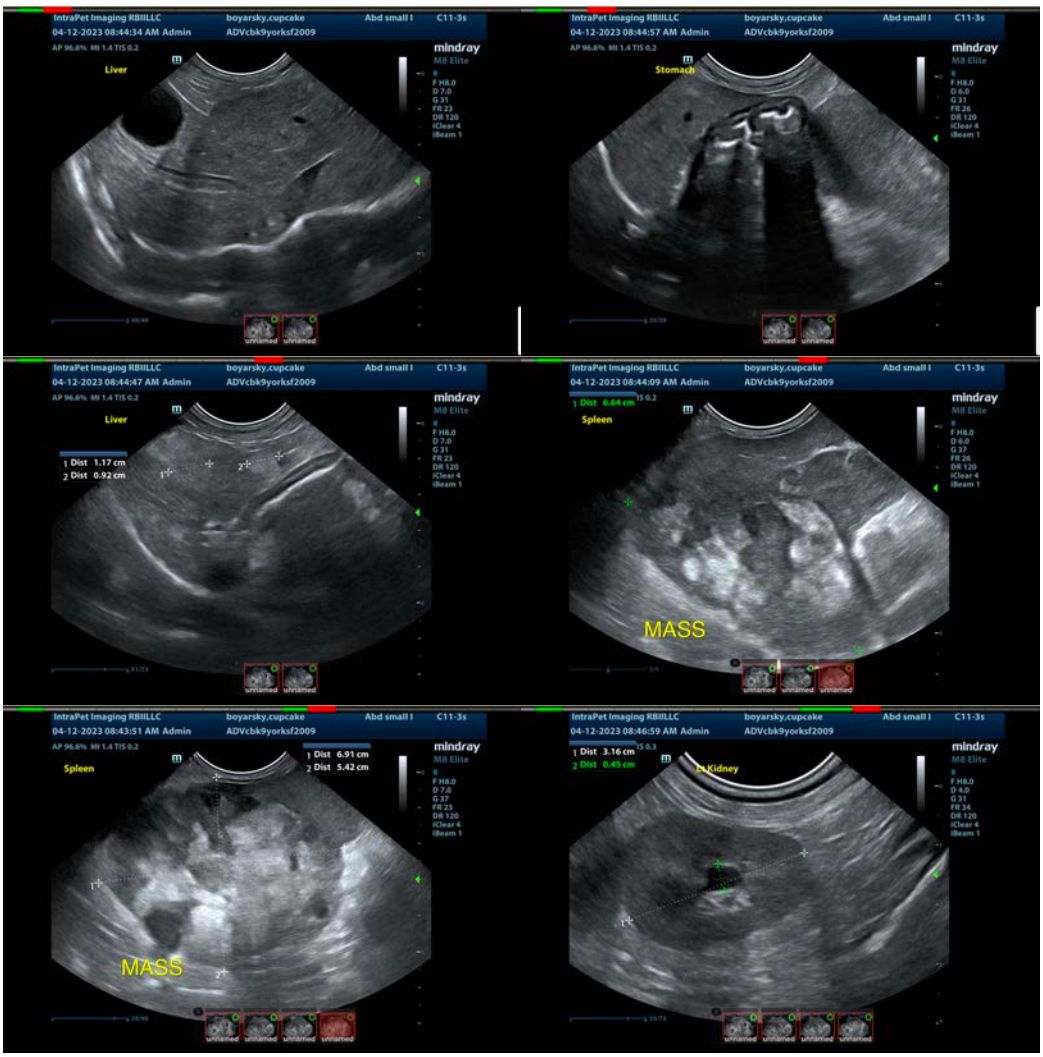
There is a large, mixed echogenic, partially cavitated splenic mass lesion visualized. This is somewhat irregular and difficult to image and measure in one field of view. This could represent a benign or neoplastic lesion.

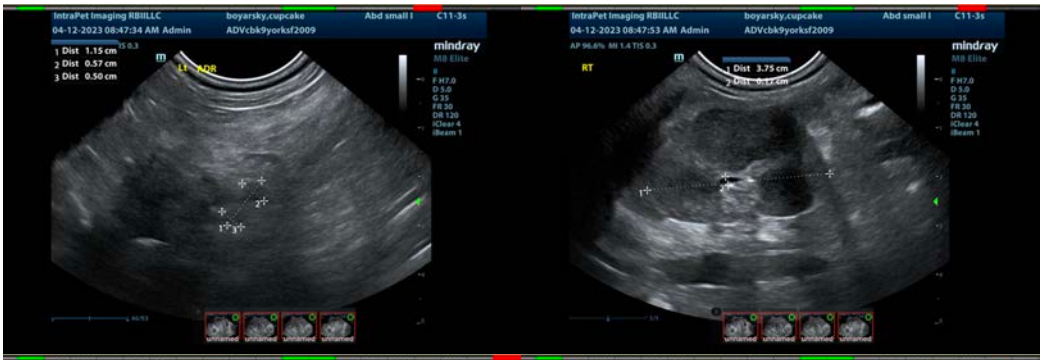
Additionally, the liver has numerous intraparenchymal ill-defined nodules. Typically, this appearance would be most consistent with nodular hyperplasia and possibly a benign etiology, but in this situation metastatic disease would need to be considered. However, these nodules do still have a somewhat benign appearance.

Recommend a fine needle aspirate of the liver. If cytologic analysis is not consistent with metastatic neoplasia, and 3-view thoracic radiographs are normal, then consider splenectomy for both diagnostic and therapeutic purposes.

Both kidneys have decreased corticomedullary distinction and mild bilateral pyelectasia. Recommend a urinalysis, culture, and blood pressure to obtain a baseline.

Additionally, the pancreas is somewhat prominent and slightly mottled. This could be consistent with the previous episode of pancreatic inflammation reported. Recommend continued monitoring, as hopefully this will continue to improve.

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mindray
LT ADR
1 Dist 1.15 cm
2 Dist 0.57 cm
3 Dist 0.50 cm

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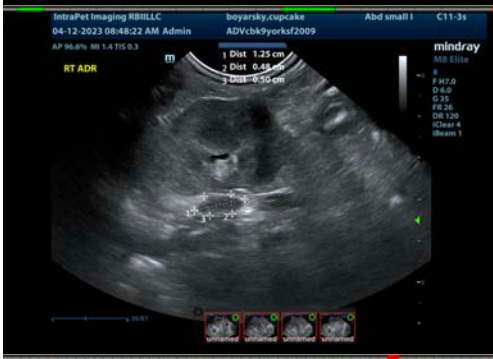
1 Dist 3.75 cm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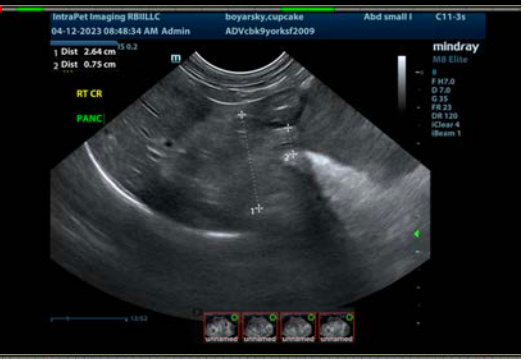
3 Dist 0.50 cm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mindray
1 Dist 2.64 cm
2 Dist 0.75 cm
RT CR
PANC


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
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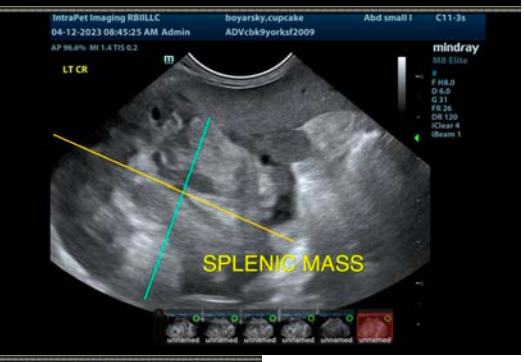
mindray
Liver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boyarsky,cupcake
Abd small I
C11-3s
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ADVcbk9yorksf2009
mindray
LT CR
SPLENIC MASS


IntraPet Imaging RBIILLC
boyarsky,cupcake
Abd small I
C11-3s
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ADVcbk9yorksf2009
mindray
RT
LIVER-POORLY DEFINED NODULES

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)
kathleen.sennello@sonopath.com