SonoPath
Clinical Sonography & Telecytology
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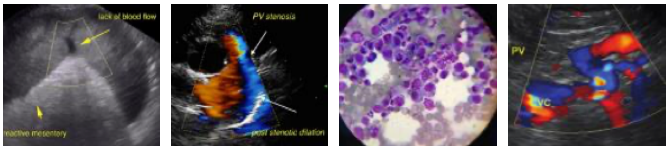

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Toby Matheson

SPECIES
Canine

BREED
Maltese/terrier

SEX
Male, netuered

AGE
11 Yrs. 11 months

WEIGHT
4.85 kg.

INTERPRETED BY
Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY
Dr. Barnes

HOSPITAL NAME
Westview VH

REFERRING VET
Dr. Barnes

INVOICE
14578

DATE
2/14/23

PRESENTING CLINICAL SIGNS

History: Previously history: May 2022 1) Left medial liver nodule/mass, likely hyperplasia with a mild potential for underlying neoplasia. (previous size 3.54x1.8 CM) BX 2) Pancreatic fibrosis. 3) Pronounced nodular hyperplasia (emerging cirrhosis is possible. Potential for Underlying hepatic neoplasia is mild) 4) DMVD Stage B1 , well compensated at this time. 5) Trace TR
Abnormal PE/Chem/CBC/UA Results: Previous liver cytology Moderate vacuolar hepatopathy (cytoplasmic rarefaction) with concern for neutrophilic inflammation (July 2022) Previous Liver Trucut Bx: Vacuolar hepatopathy, glycogen-type, mild to moderate, diffuse. (July 2022) Idexx ref lab: May 16, 2022 CBC: Decreased MCHC, Retic 138.6 (N 10-110) % Nuc RBC 8.0 (N 0-2.0), Nuc RBC 8 (N 0-2.0) Chem; Glu 7.4 (N 3.5-6.3) Cl 106 (N 108-119) TP 77 (N 55-75) Alb 45 (N 27-39) Alt 138 (N 18-121) ALP 2859 (N 5-160) Prev 1772, 1828, 904, 555 SDMA 7 (N 0-14) Cardiopet BNP 737 (N 0-900) 11 Repeat bloods pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall is normal in thickness with a smooth mucosal surface. A 0.23 cm cystic calculus is observed within the lumen along with a scant amount of suspended echogenic debris. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.89 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (4.56 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen. A small cortical cyst is observed at the craniolateral aspect. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is a questionable cortical infarct at the caudal pole. There is no evidence of pyelectasia, nephroliths or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.30 cm in length) with a slightly irregular shape. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic foci are observed within the cortex. Hyperechoic shadowing diverticular foci are also seen. A cortical infarct is observed at the lateral aspect. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.43 cm at cranial pole) (0.41 cm at caudal pole) (1.67 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.56 cm at cranial pole) (0.51 cm at caudal pole) (1.33 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

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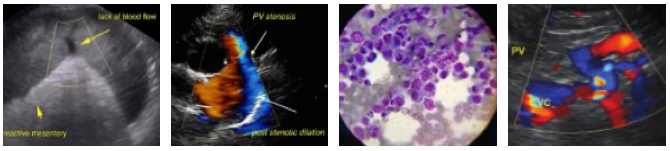

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The spleen is normal in size (1.41 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few hyperechoic nodules are observed, the largest measuring 0.98 cm in diameter. Splenic vasculature is normal.

Liver

The liver is enlarged with irregular peripheral contours. A >5.6 cm heterogeneous slightly cavitated mass is arising from the left to mid liver, at the caudal aspect. The lesion causes capsular expansion. The mesentery effacing the serosal surface of the mass is hyperechoic. The remaining hepatic parenchyma is isoechoic relative to the spleen and heterogeneous in appearance. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of gravity-dependent echogenic to mineralized debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

A portion of the pancreas is obscured by the large hepatic mass. In the visualized portion, no obvious abnormalities are seen.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. There is no obvious evidence of free fluid.

Lymph Nodes

See *Other.*

Other

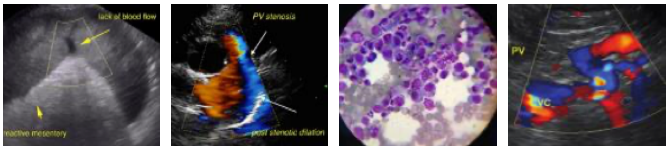
A 2.75 x 1.30 cm well-circumscribed, echogenic structure is observed in the mid to caudal abdomen, just cranial to the urinary bladder. The structure exhibits mild heterogeneity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Large left to mid hepatic mass. Neoplasia (i.e., adenocarcinoma, adenoma, hemangiosarcoma, round cell tumor) is considered likely with a lower possibility of a large inflammatory focus. Adjacent peritonitis is present. The diffuse hepatic parenchymal changes are non-specific and may be secondary to a benign process (i.e., regenerative nodular hyperplasia). Alternatively, infiltrative neoplasia, inflammatory disease or other hepatopathy are possible.
- Small cystic calculus.

Secondary Findings:



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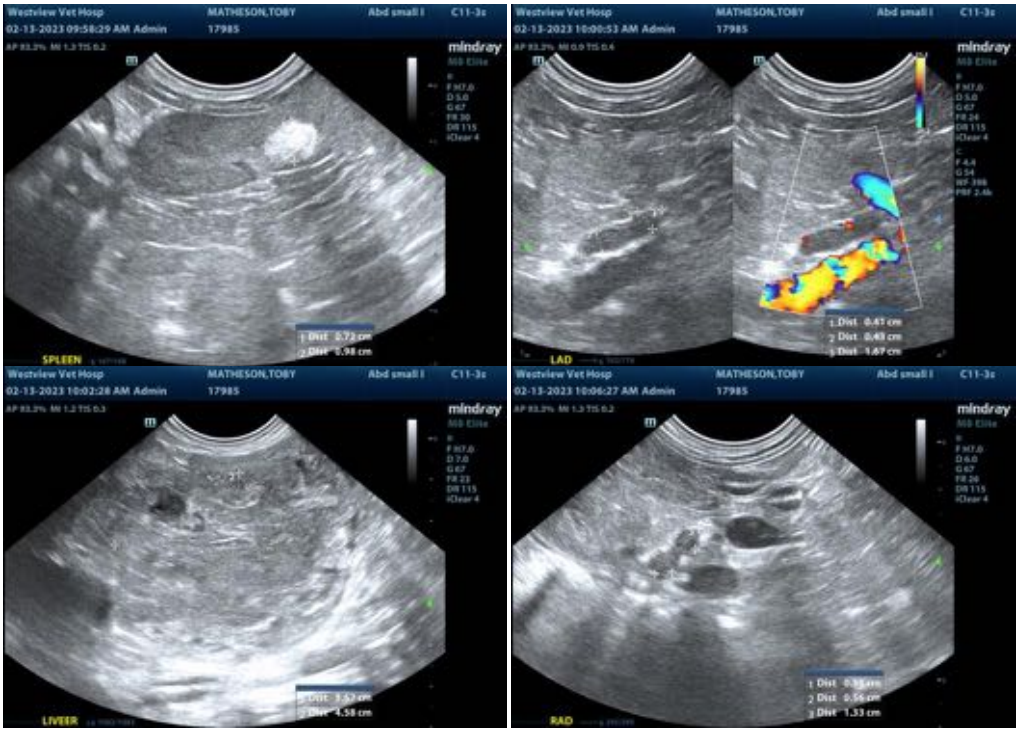
- Bilateral, chronic renal changes with cortical infarcts and right dystrophic mineralization.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.
- The echogenic structure in the mid to caudal abdomen is suspected to be extrasplenic tissue or an extension of normal spleen. Other differentials include prominent lymph node, granuloma, inflammatory focus, tumor (less likely), other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If there is no evidence of pulmonary metastatic disease and an aggressive approach is desired, consider hepatic mass removal with submission for histopathology. Biopsies of the other liver lobes should also be obtained at the time of surgery. If surgery is pursued, consider cystotomy with stone removal, analysis and culture if the patient is stable under anesthesia. An abdominal CT scan would be useful in pre-surgical planning.



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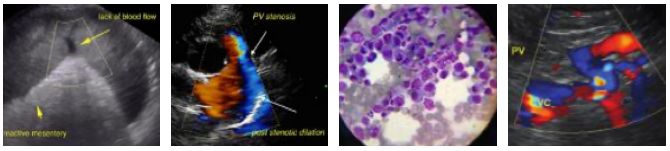

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com