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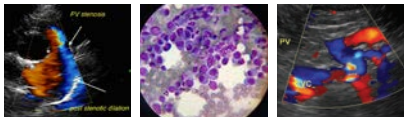

SonoPath

Clinical Sonography & Telecytology

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DATE

11/12/21

PATIENT

Marble Cowling

SPECIES

Canine

BREED

Australian Shepherd X

SEX

Spayed Female

AGE

5/7/06

WEIGHT

20.9 Pounds

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Falkowski

INVOICE

29798

PRESENTING CLINICAL SIGNS

History: 11/4/21: exam for urination problems - past 3-4 weeks patient has been having BM and urinating in house. Owner thinks patient does not have much control over bladder- patient will just stand there and leak urine. Per owner, patient yesterday had green/black color in urine
no straining to urinate. PE: Grade 2 dental disease; tooth root abscess over 206; Severe muscle wasting; BCS 2/9; abdomen palpates soft and non-painful; no overt masses or organomegaly.

Current Medications: Cefpodoxime 100mg tablets: 1/2 tab PO SID since 11/4; Proin 25mg tablets: 1/2 tab PO BID since 11/8.
Lab Results: Bloodwork 11/4/21: CBC: Mild normocytic, normochromic regenerative anemia (HCT 34%) Ddx: blood loss vs hemolysis. Mild lymphopenia 0.886K/uL Ddx: stress. Mild eosinopenia 0.022K/uL Ddx: normal, stress, acute inflammation. Moderate thrombocytosis 628K/uL Ddx: stress, rebound, neoplasia.
Chemistry: Mild hyperglycemia 123mg/dL Ddx: stress.
ALT 362U/L Ddx: inflammation, infection, toxin, neoplasia, cushings
AST 67U/L Ddx: inflammation, infection, toxin, neoplasia, cushings
ALP 424U/L Ddx: inflammation, infection, toxin, neoplasia, cushings
GGT 104U/L Ddx: inflammation, neoplasia, toxin, cushings, infection.
UA (cysto): USG 1.018, pH 7.5, 2+ protein, inactive sediment
T4: 1.6ug/dL.
Radiographs: Lateral radiograph: Thorax: heart and lungs appear wnl; no evidence of neoplasia. Abdomen: hepatomegaly; No overt masses. Brief ultrasound: mottled appearance of liver and hepatomegaly. No overt free fluid or masses present. No evidence of pericardial or pleural effusion.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: declined.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended. A small amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney presented normal size (5.93 cm in length); normal shape and relatively smooth peripheral contours. The cortex is mildly thickened. There is moderate loss of corticomedullary distinction. The cortex is slightly heterogeneous in appearance with several small cortical cysts. Hyperechoic shadowing diverticular foci are visualized. Pinpoint hyperechoic foci are also seen within the cortex. Mild pyelectasia is present at 0.21 cm in the transverse plane. There is no evidence of infarcts or hydroureter.

The right kidney presented normal size (6.61 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. The cortex is slightly heterogeneous with pinpoint hyperechoic foci. Hyperechoic shadowing diverticular foci are also seen. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is moderately to severely enlarged in size (1.52 cm at cranial pole) (1.48 cm at caudal pole) (3.53 cm in length); with an irregular shape. The parenchyma is slightly heterogeneous in appearance with loss of glandular detail. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is moderately to severely enlarged in size (1.00 cm at cranial pole) (0.83 cm at caudal pole) (2.64 cm in length); with an irregular shape. The parenchyma is slightly heterogeneous in appearance with loss of glandular detail. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature appear normal.

Spleen

The spleen is normal in size (1.75 cm) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small, ill-defined, hyperechoic nodules are observed throughout the organ. Splenic vasculature is normal.

Liver

The liver is enlarged with irregular peripheral contours. Numerous varying sized, irregular, coalescing, hyperechoic to heterogeneous masses are observed throughout the parenchyma. There is minimal to no normal appearing hepatic tissue. Hepatic vasculature is of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of echogenic to mineralized sludge is observed withint he lumen. The cystic and common bile ducts are normal.

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 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 or overt infiltrative disease is noted.

Pancreas

A portion of the pancreas is obscured by the hepatomegaly. In the visualized portions, no obvious pathology is seen.

Free Abdomen

A few prominent mesenteric lymph nodes are visualized, the largest measuring 3.13 cm in length. Surrounding mesentery is mildly hyperechoic. 1-2 prominent lymph nodes are also observed in the right cranial quadrant. The mesentery in the cranial to mid abdomen is hyperechoic. Trace free fluid is observed.

PRIMARY FINDINGS

- Hepatic masses – Neoplasia (i.e., adenocarcinoma, sarcoma, round cell neoplasia) is considered likely with a lower possibility of multifocal inflammatory disease. The cranial to mid abdominal peritonitis is likely secondary to hepatic pathology.
- Excessive gallbladder sludge
- The prominent abdominal lymph nodes could be consistent with lymphoid hyperplasia, reactive lymphadenitis, or infiltrative neoplasia.

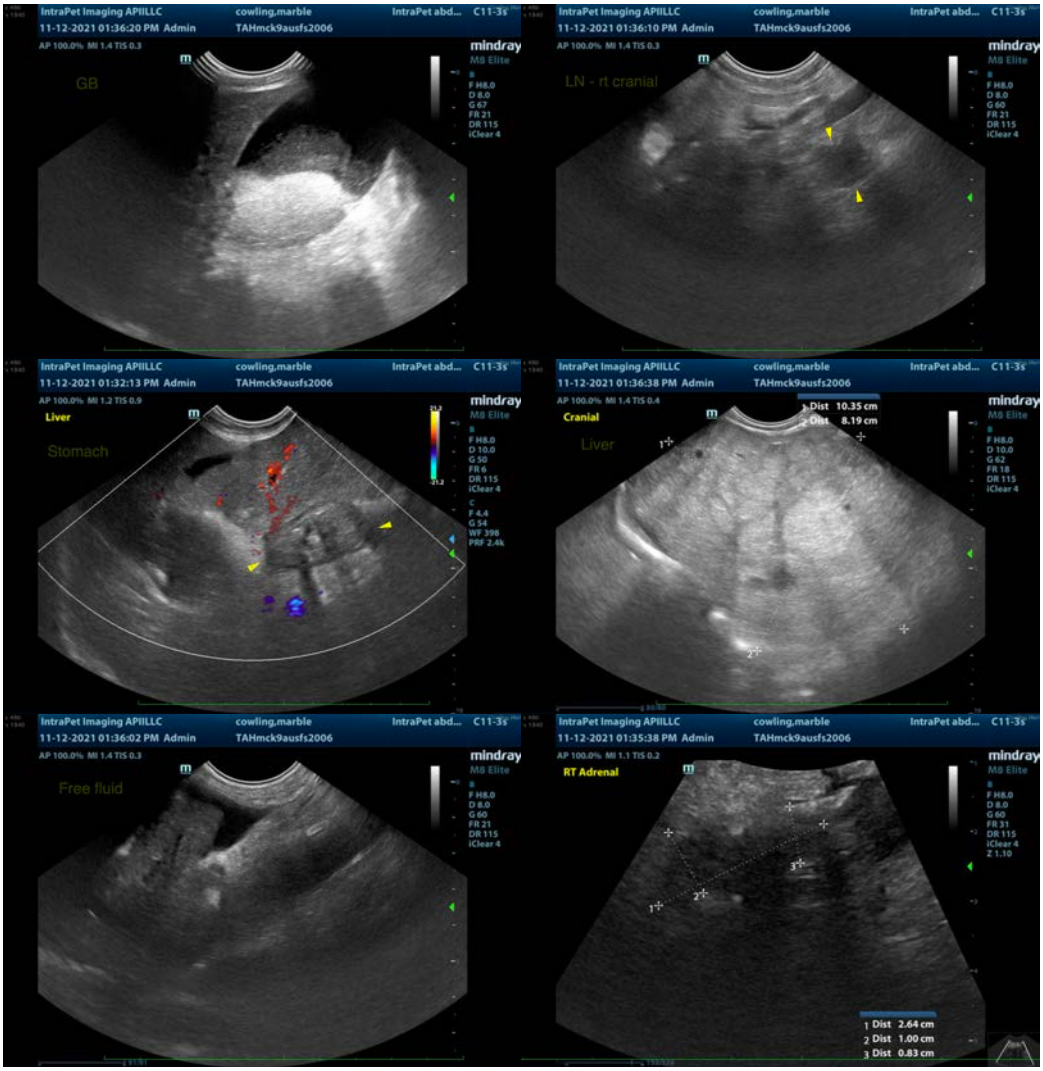
SECONDARY FINDINGS

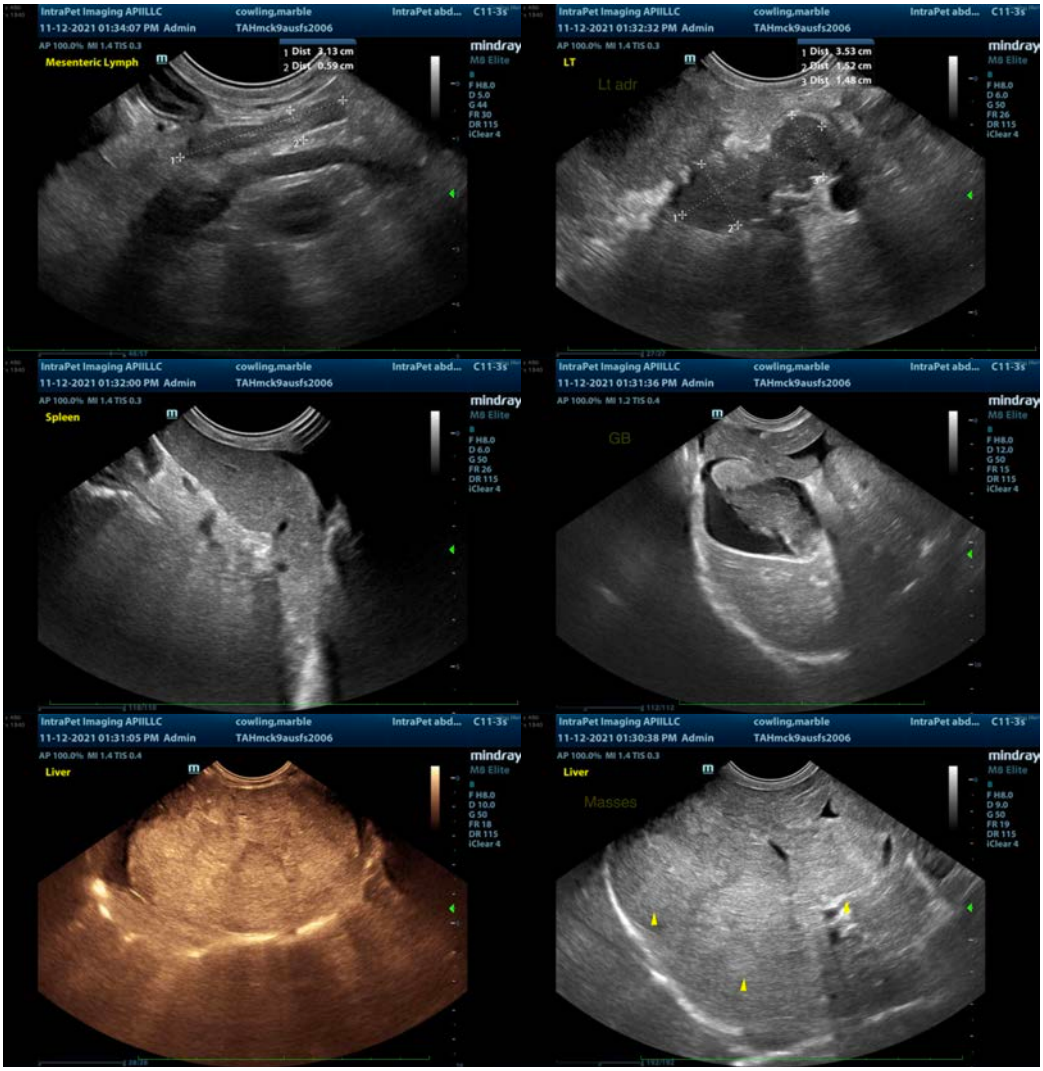
- The bilateral adrenomegaly is most consistent with hyperplasia with minor potential for emerging neoplasia, particularly in the left adrenal gland.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.

- Bilateral age-related renal changes with dystrophic mineralization

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- VD and contralateral thoracic radiographs are recommended to complete the metastatic check.
- Fine needle aspirates of the liver masses can be considered if clotting status is normal. 25-gauge needles should be used. However, it should be noted that primary hepatic neoplasia can be difficult to diagnose cytologically. Therefore, surgical biopsies may be necessary to get a definitive diagnosis. Unfortunately, however, given the diffuse hepatic pathology, the prognosis for this patient is considered guarded and palliative care should be considered.





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.

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