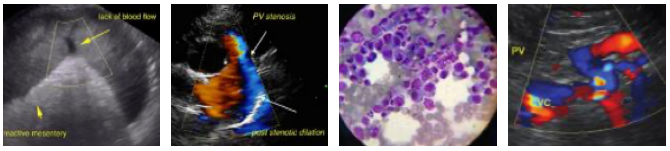
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Pluto Martinez

SPECIES
Canine

BREED
Maltese mix

SEX
Male, neutered

AGE
10 Yrs.

WEIGHT
20.4 lbs.

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

IMAGING PERFORMED BY
Kim Liedberg

HOSPITAL NAME
SVS Imaging WI

REFERRING VET
Dr. McCoy

INVOICE
14595

DATE
2/14/23

PRESENTING CLINICAL SIGNS

History: Presented for ear infection decreased appetite and lethargy. Culture came back as staphylococcus schleiferi. Treated with antibiotics. Returned two days later with no improvement. Rule out hepatic mass. Sedated with gabapentin and trazadone.
Abnormal PE/Chem/CBC/UA Results: CBC shows regenerative anemia and elevated liver enzymes.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1- 2 cm, are normal.

The prostate is normal in size (0.86 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 (4.42 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal size (5.20 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.36 cm at cranial pole) (0.41 cm at caudal pole); 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 enlarged (1.15 cm at cranial pole) (1.99 cm at caudal pole) with a mass effect and an irregular shape. The parenchyma is heterogeneous with hyperechoic to mineralized foci. There is loss of glandular detail. There is no obvious evidence of vascular invasion.

Spleen

The spleen is normal in size (1.14 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is enlarged with irregular peripheral contours. A greater than 7 cm hyperechoic to heterogeneous mass is arising from the left side. The lesion causes capsular expansion. In the remainder of the liver, the parenchyma is hypoechoic relative to the spleen and homogeneous 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 to moderate amount of suspended echogenic debris along with a scant amount of gravity-dependent mineralized sand is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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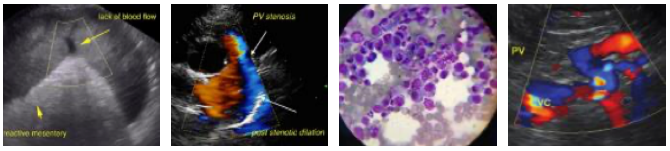

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Gastrointestinal

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. The lumen of the descending colon contains granular appearing fecal material. No obstructive disease is noted.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

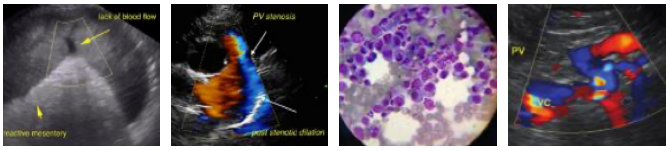
- Left hepatic mass. Neoplasia (i.e., adenoma, adenocarcinoma, round cell tumor) is considered likely with a lower possibility of a benign process (i.e., inflammatory focus).
- Right adrenal mass. Again, neoplasia (i.e., adenocarcinoma, adenoma, pheochromocytoma) is considered likely with a lower possibility of benign nodular hyperplasia.

Secondary Findings:

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with dystrophic mineralization.
- Gallbladder debris/sand.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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 or debulking +/- a right adrenalectomy. An abdominal CT scan would be useful in pre-surgical planning.
- With regard to the right adrenal gland, also consider the following:
    1. Baseline blood pressure measurement to assess for systemic hypertension.



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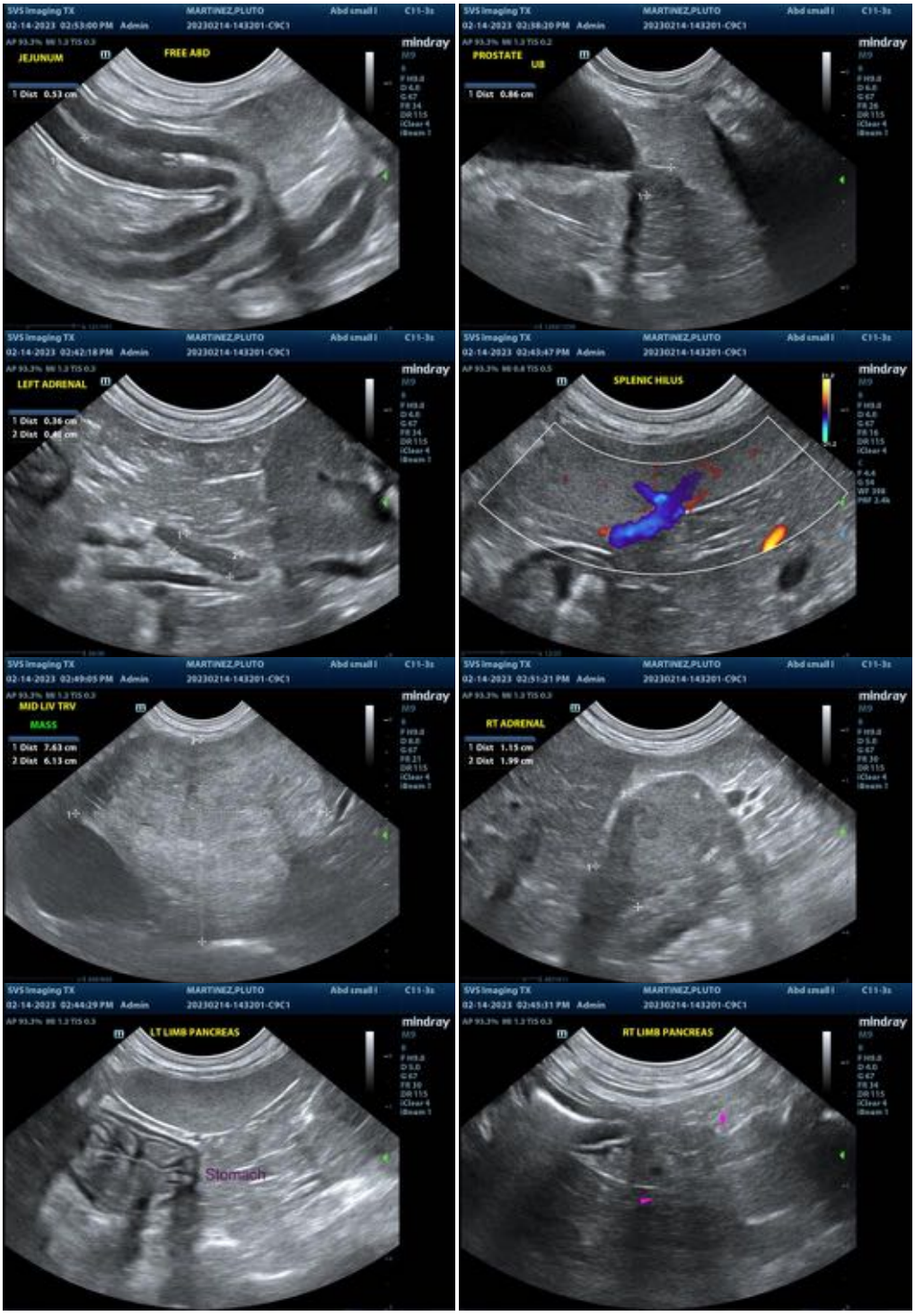
2. Further testing (i.e., low dose Dexamethasone suppression test, urine/blood catecholamine levels) to assess for a functional tumor.
3. The above tests should be performed prior to considering an adrenalectomy.



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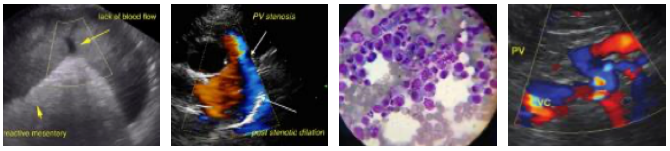

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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