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Clinical Sonography & Telecytology
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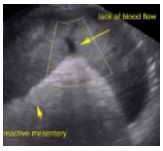
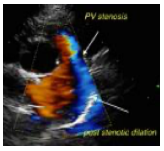
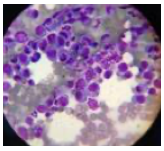
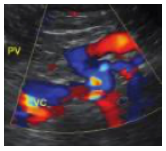

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1-800-838-4268 info@sonopath.com

PATIENT
Ozzie Sternamiolo

SPECIES
Canine

BREED
Cocker Spaniel

SEX
Female, spayed

AGE
14 Yrs. 8 months

WEIGHT
27 lbs.

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

IMAGING PERFORMED BY
Amy Priest

HOSPITAL NAME
Long Valley AH

REFERRING VET
Dr. Stephanie Welch

INVOICE
15188

DATE
8/8/23

PRESENTING CLINICAL SIGNS

History: Currently pet doing well at home, no concerns per O aside from mobility/arthritis related. Recent NSAID BW at tech appt yesterday revealed moderate liver elevations. P has had history of suspected cushing's disease but asymptomatic currently and testing results (both ACTH stim and LDDS) have revealed mixed results (only consistent once but pet was non-clinical at the time, remaining cushing's test have been normal or equivocal/borderline. Hx arthritis - on Galliprant, Gabapentin, + dasuquin. Hx cataract OD. Hx atopy and some skin/derm issues. Hx low grade HM (intermittently noted - echo has revealed mitral valve disease in past but no medications recommended. No murmur noted today on exam.
O did note that pet has been drinking and urinating more but has been unchanged and that way for quite some time. And pet is always hungry but that has always been pets normal (as far as appetite) since puppy, no changes or increases to appetite.
Abnormal PE/Chem/CBC/UA Results: ALT - 402, AST - 111, ALP 1855 BUN = 38 (yesterday tech appt 8/7/23) Full Bloodwork pending (8/8/23) BP obtained after scan preliminary findings = 240 systolic / 132 diastolic (171 MAP), HR = 180

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (5.09 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen. A few small cortical cysts are seen. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Several small, non-obstructive foci of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.94 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen. 1-2 small cortical cysts are seen. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Several small, non-obstructive foci of mineralization are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.79 cm at cranial pole) (0.57 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.

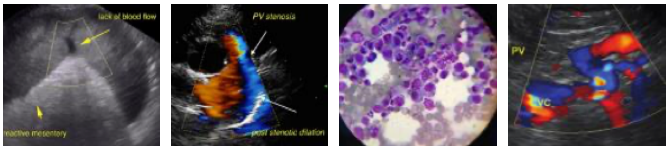
The right adrenal gland is enlarged (0.95 cm at cranial pole) (0.89 cm at caudal pole) with an irregular shape. The parenchyma is heterogeneous with loss of glandular detail. Surrounding mesentery is hyperechoic. There is no obvious evidence of vascular invasion.

Spleen

The spleen is subjectively normal in size (1.17 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is diffusely mottled with ill-defined hypoechoic areas throughout the organ. A few small meylolipomas are observed in the region of the hilus. Splenic vasculature is normal with no obvious evidence of thrombosis.

Liver

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic



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vasculature 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 moderate amount of aggregated echogenic partially dependent to suspended sludge in a partially stellate pattern is observed within the lumen. Some adhered debris is also seen. 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

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no obvious evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Non-specific diffuse hepatopathy. Differentials include vacuolar hepatopathy, regenerative nodular hyperplasia, age-related remodeling, inflammatory disease, hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), other hepatopathy.
- The gallbladder changes are suggestive of an emerging mucocele.
- The right adrenomegaly could be consistent with hyperplasia or an emerging tumor (i.e., adenoma, adenocarcinoma, pheochromocytoma, other). Adjacent peritonitis is present.

Secondary Findings:

- Bilateral chronic renal changes with non-obstructive nephrolithiasis.
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation or infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully formed mucocele. If progression occurs, a cholecystectomy may be warranted.

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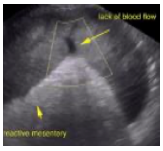
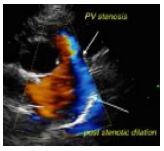
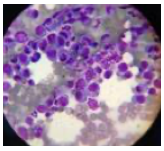
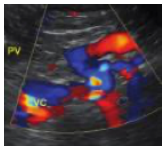

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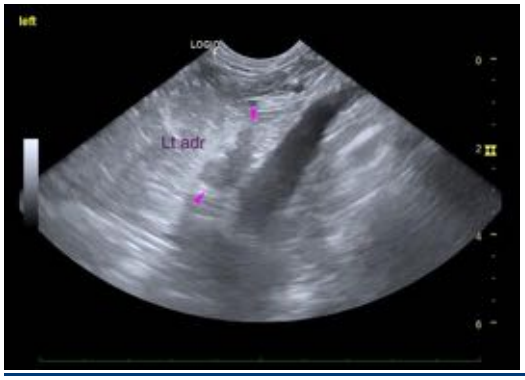
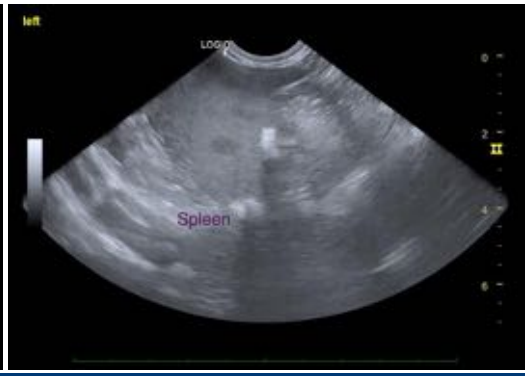
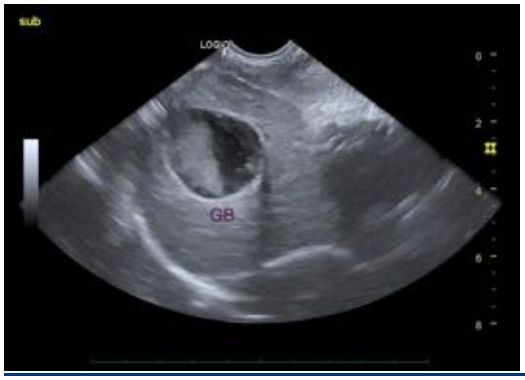
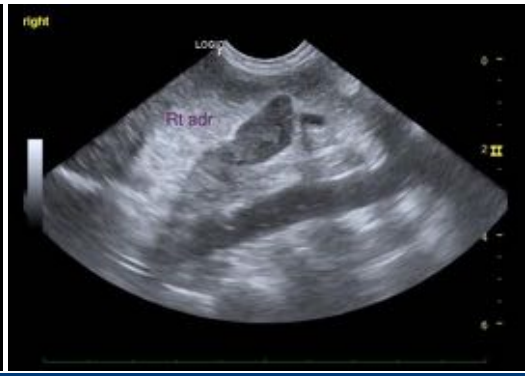
- Regarding the right adrenal tumor, consider the following:
  - Recheck blood pressure measurement to assess for persistent hypertension. If present, initiation of an anti-hypertensive agent (i.e., Amlodipine) should be considered.
  - Consider further testing for a functional adrenal tumor (i.e., urine/blood catecholamine levels), low-dose Dexamethasone suppression test (if not performed recently).
  - Three-view thoracic radiographs are recommended to evaluate for pulmonary metastatic disease.
- Consider hepatic tissue sampling (i.e., fine needle aspirate or biopsies (i.e., laparoscopic or surgical)) if clotting times are normal. If hepatic tissue sampling is not pursued at this time, serial monitoring (i.e., every 3 months) of the patient's liver values is recommended. If values continue to increase, repeat abdominal ultrasound +/- further workup may be warranted.
- Regarding the splenic parenchymal changes, a fine needle aspiration can be considered (if clotting status is appropriate). A 25-gauge needle should be used.









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.

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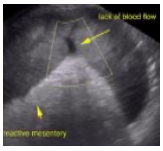
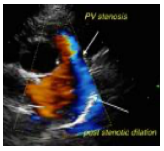
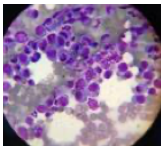
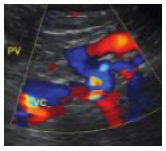

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