SonoPath
Clinical Sonography & Telecytology
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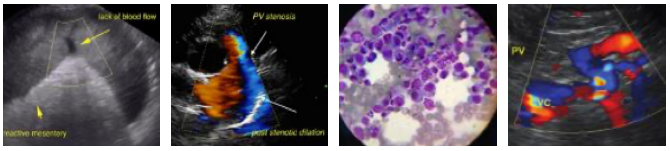

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1-800-838-4268 info@sonopath.com

PATIENT

Maggie Pampin

SPECIES

Canine

BREED

Wheaton/Poodle

SEX

Female, spayed

AGE

13 Yrs.

WEIGHT

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Andover AH

REFERRING VET

Dr. Vanderbogart

INVOICE

12669

DATE

PRESENTING CLINICAL SIGNS

History: elevated renal values. R/O renal disease vs neoplasia vs age vs other. Presented for PU/PD and decreased appetite for a week. not on any meds.
Abnormal PE/Chem/CBC/UA Results: BUN 35, Crea 1.7, ALKP 203, Na 156; UA: pH 7.5, trace blood, USPG 1.013

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The wall is diffusely thickened (up to 0.49 cm) with a smooth mucosal surface. 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 (6.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. A 1.12 x 0.88 cm fluid filled structure is observed at the corticomedullary junction and may represent a cortical cyst or a dilated calyx. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (6.30 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.77 cm at cranial pole) (0.74 cm at caudal pole) (2.09 cm in length) with a normal shape. A 0.65 x 0.55 cm hyperechoic nodule is observed at the cranial pole. The remaining parenchyma is mildly heterogeneous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

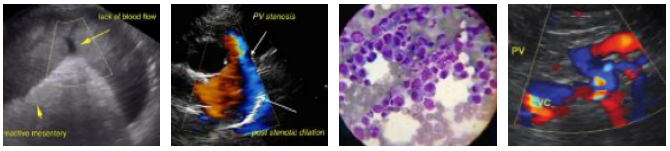
The right adrenal gland is normal size (0.63 cm at cranial pole) (0.56 cm at caudal pole) (1.57 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.54 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 subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely mottled in appearance. A 3.89 x 3.85 cm irregular hyperechoic nodule/mass is observed deep right liver, adjacent to the diaphragm. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava



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ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are mostly anechoic. 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

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

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Bilateral age-related renal changes with a fluid filled structure in the left kidney which may represent a cortical cyst or dilated calyx. Dystrophic mineralization is present in the right kidney.
- The urinary bladder wall changes may be artifactual due to lack of luminal distention. Alternatively, cystitis may be present. Correlation with clinical findings is recommended.
- The right hepatic nodule/mass trends toward the benign (i.e., area of regenerative nodular hyperplasia) with a lower possibility of emerging neoplasia.

Secondary Findings:

- The left adrenal changes could be consistent with benign nodular hyperplasia. Alternatively, emerging neoplasia is possible.
- Age-related pancreatic remodeling/fibrosis.

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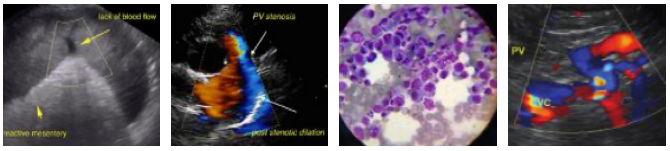

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the renal changes and azotemia, consider the following:
  1. Urine culture and sensitivity.
  2. UPC (if proteinuria is present).
  3. Baseline blood pressure measurement.
- Regarding the decreased appetite, consider the following diagnostics:
  1. Three-view thoracic radiographs to assess for occult neoplasia in the chest.
  2. GI panel (sent to Texas A&M).
  3. A fecal evaluation for ova/Giardia.
- Regarding the hepatic and left adrenal nodules, consider a repeat ultrasound in 1-2 months to assess for progression.
- Also consider pre- and post-prandial serum bile acids to assess for occult hepatic dysfunction as a cause for PU/PD.
- If PU/PD remains chronic, consider testing for Cushing's disease in the future.

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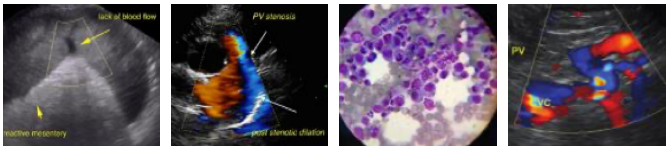

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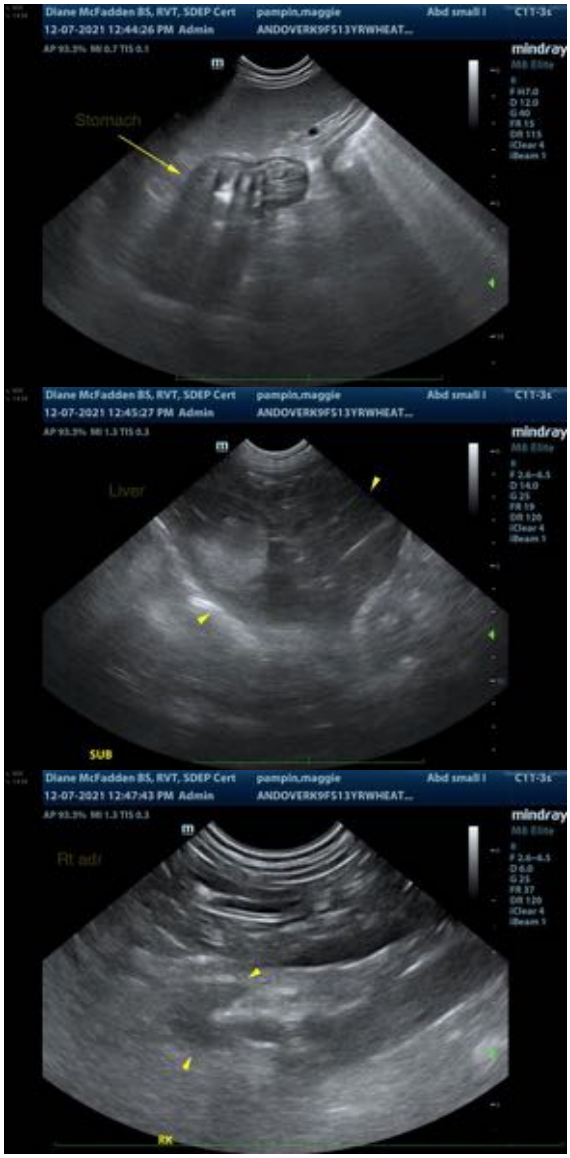

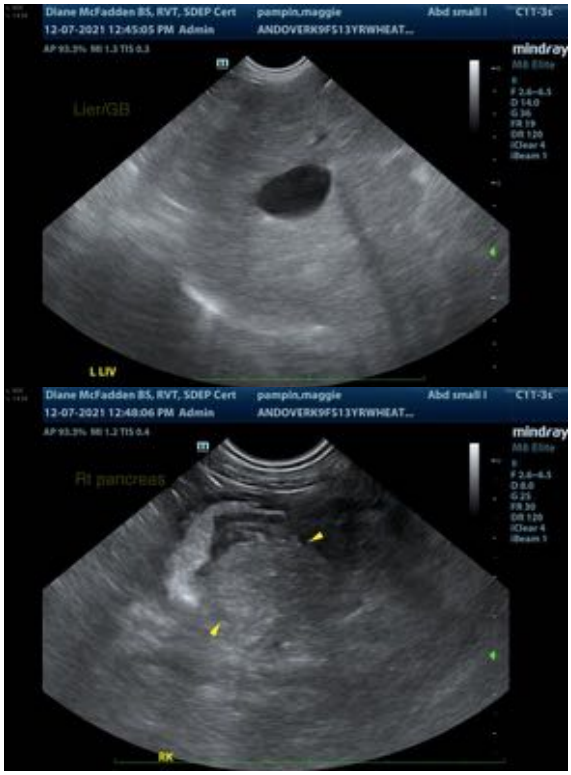

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

andrea_nicastro2@hotmail.com