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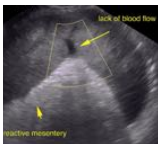
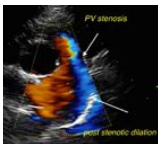
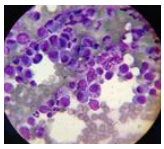
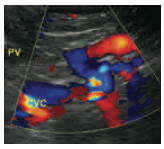

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1-800-838-4268 info@sonopath.com

PATIENT

Honey Rodriguez Rosario

SPECIES

Canine

BREED

Chihuahua

SEX

Intact male

AGE

10 years

WEIGHT

6.8 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Paseos VC

REFERRING VET

Dr. Ortiz

INVOICE

31273

DATE

6/27/22

PRESENTING CLINICAL SIGNS

History: Presented for an abdominal ultrasound recheck from the originally done on 3-18-2022. Pt has nodule on the left adrenal gland and we are monitoring and comparing it to the previous study. Pt has been doing well at home and taking actigal medication.
PE: wnl BW: Last one done CBC and CHEM WNL:

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.48 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Prostate is mildly enlarged. Parenchyma is diffusely homogenous and relatively hyperechoic. Normal distinct margins and symmetrical bilobed shape are maintained.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of mineral or infarcts observed. The left kidney measured 4.0 cm with mild pyelectasia. The right kidney measured 4.2 cm.

Adrenal Glands

Left adrenal gland is normal in size (0.47 cm at the cranial pole, 0.7 cm at the caudal pole) and it include a hypoechoic nodule in the caudal pole that causes mild capsular expansion without evidence of capsular escape or capsular invasion. The remaining architecture is normal.

Right adrenal gland is normal in size (0.22 cm at cranial pole and 0.37 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

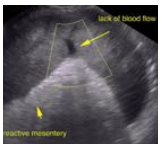
Spleen

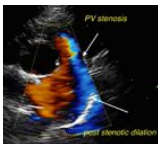
Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

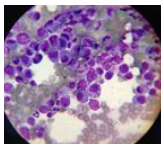
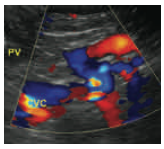
Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is not overly distended. Suspended anechoic bile as well as gravity dependent echogenic debris is noted. There is mineral debris adhered to the wall causing the wall to look mildly thick and





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hyperechoic. Cholecystitis with acoustic shadow are noted. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peri-pancreatic inflammation.

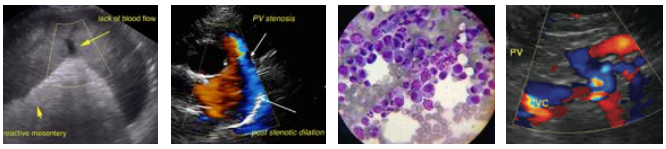
Free Abdomen

There is no evidence of peritoneal effusion. Lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

1. **Left adrenal nodule** in the caudal pole of the left adrenal gland appears unchanged from the previous imaging. Differentials include an incidental, benign nodule versus nodular hyperplasia secondary to pituitary dependent hyperadrenocorticism versus an adenoma. Early pheochromocytoma cannot be ruled out, nor can carcinoma definitively. However, there is no indication of neoplastic disease. Given the lack of capsular escape, vascular invasion and/or change from previous imaging.
2. **Coarse splenomegaly –** can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
3. **Hyperechoic hepatomegaly (canine)** – This appearance is most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.
4. **Gallbladder debris with mineral and cholcystoliths** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not



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necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Secondary Findings

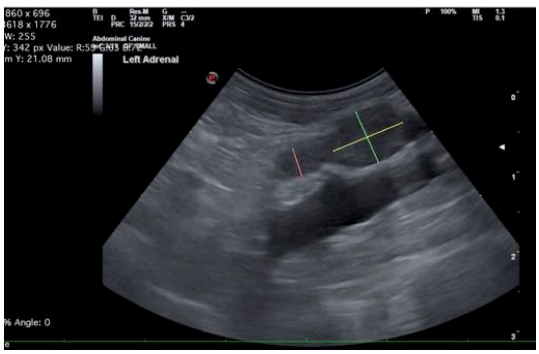
1. **Chronic Cystitis** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.
2. **Pancreatic age-related remodeling –** Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
3. **Reactive lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely

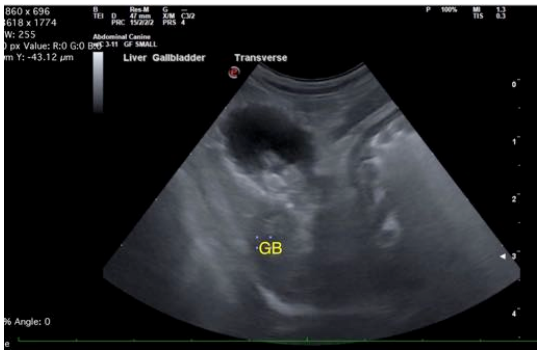
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient is reportedly doing well and there is no evidence of ultrasonographic progression of the previously noted adrenal nodule. Given the urinary bladder changes and mild pyelectasia which are new urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted. If clinical signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop.

If not recently evaluated, blood pressure is recommended.





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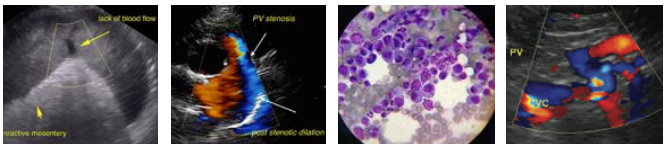

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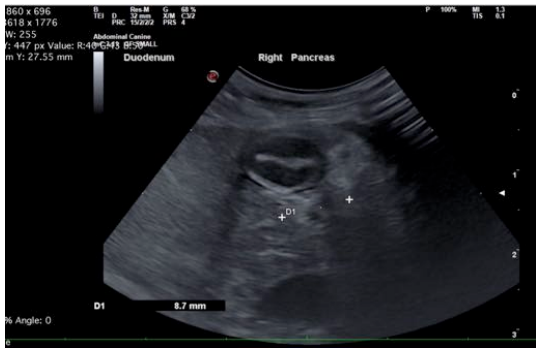

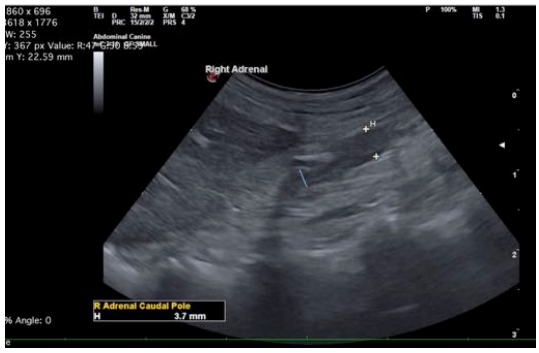

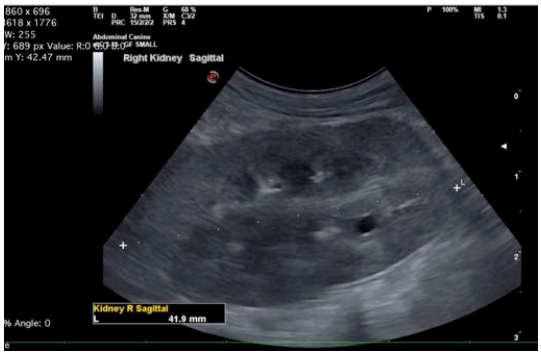

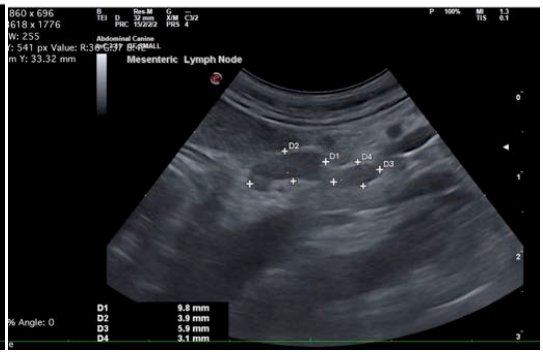

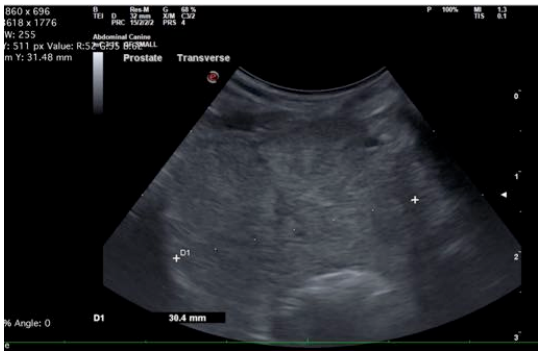

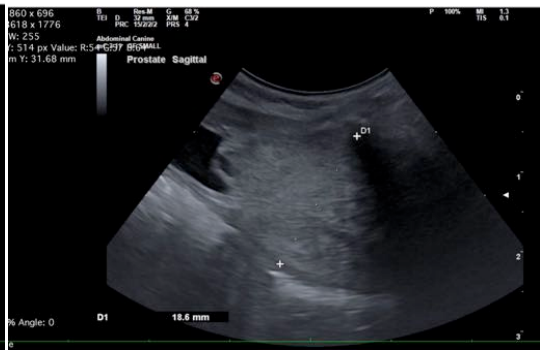

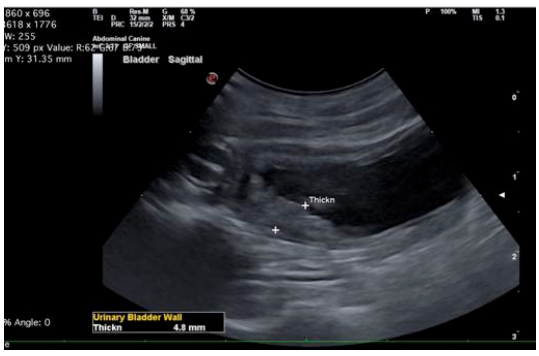

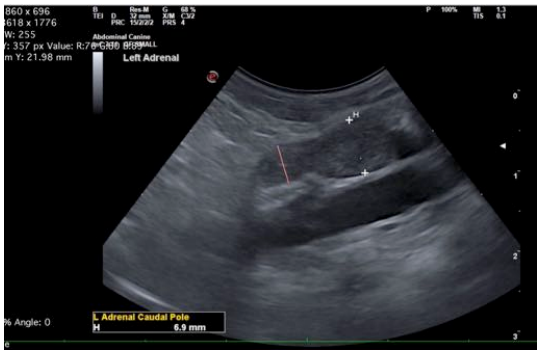

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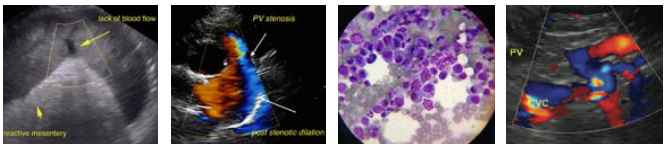

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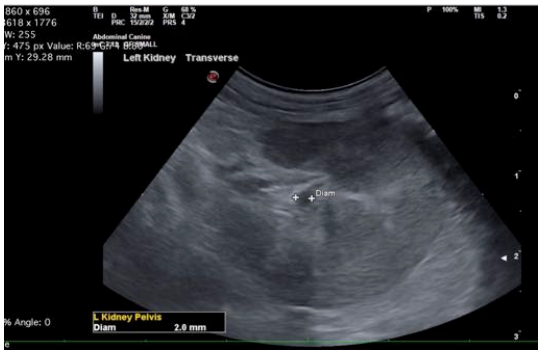

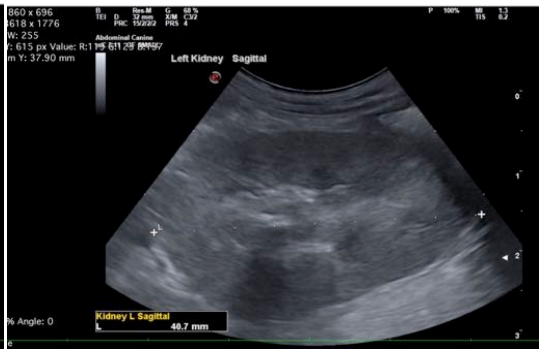

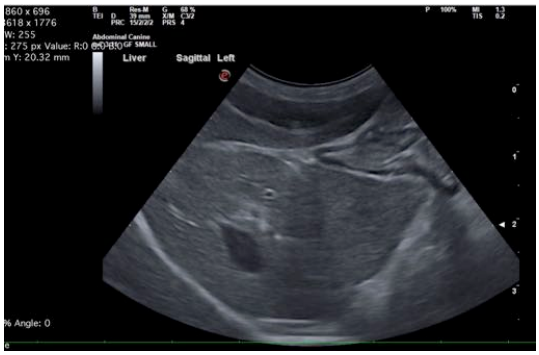

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com