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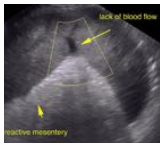
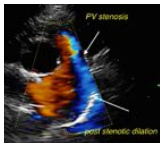
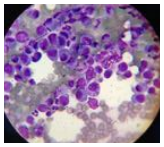
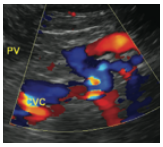
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Tiki Taylor

SPECIES
Canine

BREED
Cavalier King Charles Spaniel

SEX
Neutered male

AGE
13 years

WEIGHT
28 lbs

INTERPRETED BY
Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY
Diane McFadden

HOSPITAL NAME
Legacy AH

REFERRING VET
Dr. Pontezone

INVOICE
32818

DATE
9/9/22

PRESENTING CLINICAL SIGNS

History: hepatopathy; low level anemia. On gabapentin.
Abnormal PE/Chem/CBC/UA Results: Previous hx - ACTH stim neg. RBC 5, HCT 36%, Hgb 12, BUN 40, ALT 128, ALKP 1313; UA: protein 3+, USPG 1.033

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

The prostate is of appropriate size for patient age and neutering status, with a homogenous parenchyma and smooth capsule. The prostatic urethra is non-dilated with normal margins).

Both kidneys are hyperechoic, and exhibit poor corticomedullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). There are numerous, tiny, cortical cysts present in both kidneys. The left kidney measured 5.7 cm. The right kidney measured 5.9 cm.

Adrenal Glands

Both adrenal glands are diffusely enlarged and hyperechoic. They have normal phrenic vasculature and are found in the normal location. The left adrenal gland height is (8.3) mm at the cranial pole and (6.2) mm at the caudal pole. The right adrenal gland height is (8.3) mm at the cranial pole and (4.3) mm at the caudal pole

Spleen

The splenic parenchyma is diffusely mottled with small hypoechoic nodules up to (3.7 mm) in size. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

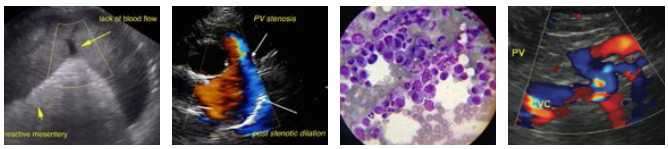
Liver

The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is markedly distended with anechoic contents and a large amount of freely movable echogenic sludge. While most of the wall is thin and continuous, there are focal areas of polypoid change to the gallbladder wall. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

The stomach is empty. The gastric wall is (6.7) mm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.



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The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenal wall measures (4.2) mm. The jejunal wall measures up to (3.8) mm. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to (1.2) mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

Reactive hepatopathy.

Polypoid changes to the gallbladder wall.

SECONDARY FINDINGS:

Diffusely nodular spleen.

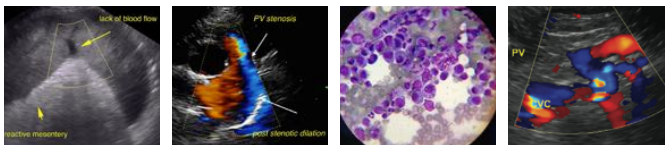
Bilateral adrenal hyperplasia.

Chronic renal disease.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes to the gallbladder wall may be incidental, but can also occur with cholecystitis. Given the elevation in liver enzymes, treatment with Ursodiol is recommended. Cholecystocentesis for culture can also be considered or an empirical trial with antibiotics such as Fluroquinolone.

The changes to the liver and adrenal glands could be consistent with Cushing's disease. Since an ACTH stimulation was normal, this makes Cushing's disease less likely. However, if symptoms such as polyuria and polydipsia are present, then a low-dose Dexamethasone suppression test can be considered to



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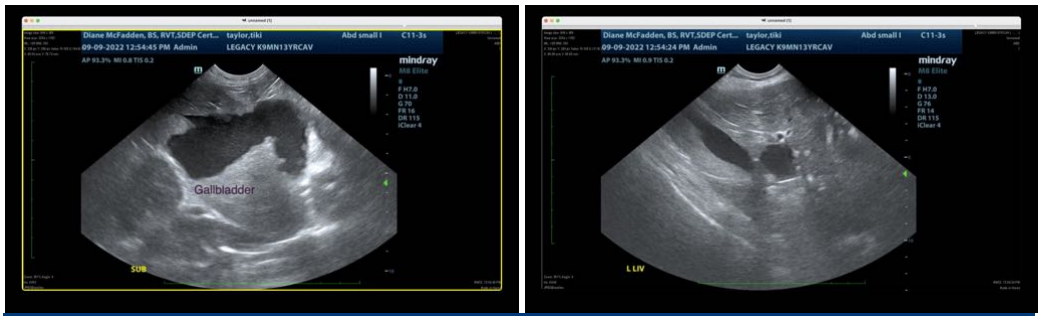
completely rule out Cushing's disease. If clinical signs are absent then further testing is not recommended. Additional recommendations to look for a cause of reactive hepatopathy include:

- ❖ screening for diabetes mellitus and hyperlipidemia if not already performed
- ❖ bile acid testing is recommended to further assess severity of hepatic disease - if elevated then liver biopsies should be considered
- ❖ if bile acids are normal, but the ALT is increased, then initiation of liver support therapies such as SAMe, Vitamin E and ursodiol, along with serial monitoring of liver enzyme levels every 2-3 months, could be initiated

The splenic changes are non-specific and could be consistent with nodular hyperplasia, extramedullary hematopoiesis, splenitis or less likely, neoplasia. Recommendations include:

- ❖ ultrasound-guided fine needle aspiration of affected areas with a 25G needle

The elevation in BUN is likely due to chronic renal disease. However, if there is a discordant elevation between BUN and creatinine, then the possibility of gastric ulceration could be considered, although there was no evidence of this seen on ultrasound. If there is vomiting or inappetence, then of course omeprazole and Sucralfate can be considered.



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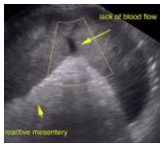
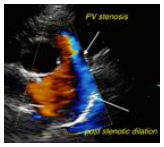
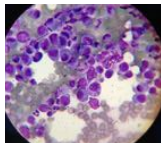
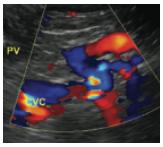

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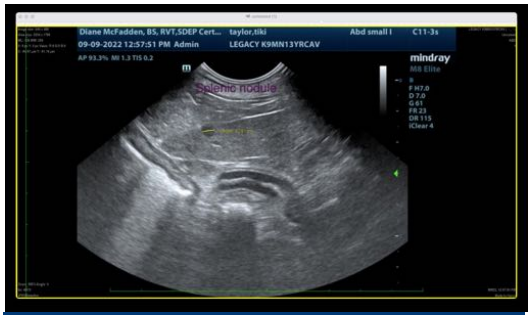

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Tam Mengine, DVM, DABVP (canine/feline practice)

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