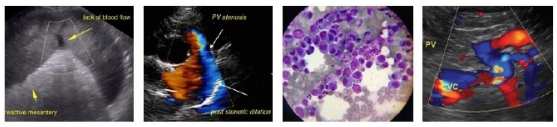

PATIENT

Nimmer Werby

SPECIES

Canine

BREED

Shih Tzu X

SEX

Neutered Male

AGE

12 Years

WEIGHT

8 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Oxford County VC

REFERRING VET

Dr. Halfon

INVOICE

37026

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PRESENTING CLINICAL SIGNS

ongoing hepatitis, enlarged liver; chronic lung disease/cough tested normal/negative for hyperadrenocorticism dewormed prior with fenbendazole hx of a jaw fracture - repaired nasal congestion overweight large fatty mass on left gluteal stomach occasionally feels hard, occasional vomiting meds: Flovent inhaler, prednisoilone 2.5 mg SID, furosemied 10 mg SID
Abnormal PE/Chem/CBC/UA Results: 1/18/22 - LDDST normal result - not cushings ALP >1900 rads: see attached radiographs - radiology referral completed at VEC imaging 1. Mild diffuse interstitial pulmonary pattern (unchanged since Dec 1, 2021) 2. Questionable mild right-sided cardiomegaly 3. non specific hepatomegaly

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is mildly to moderately distended with anechoic contents. Apical urinary bladder wall is diffusely thick (0.32 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 (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (4.85 cm) 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 echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.47 cm) 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 echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A 1.3 cm x 1.4 cm anechoic cortical cyst is present in the left kidney.

Adrenal Glands

The right adrenal gland is normal in size (1.78 cm x 1.07 cm at the cranial pole and 0.46 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.73 cm x 0.84 cm at the cranial pole and 0.71 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

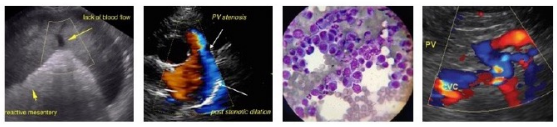
Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged. Margins are smooth but round. 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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

GB contains a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise



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smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 pancreas is prominent in size and mildly irregular in shape with a diffusely coarse echotexture and heterogeneous to hypoechoic echogenicity.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

PRIMARY FINDINGS

- Hyperechoic hepatomegaly– most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.
- Early mucocele – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

SECONDARY FINDINGS

- Age related pancreatic remodeling, although chronic smoldering pancreatitis cannot be ruled out.
- 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.
- Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.
- Left renal cortical cyst

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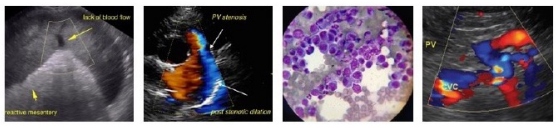

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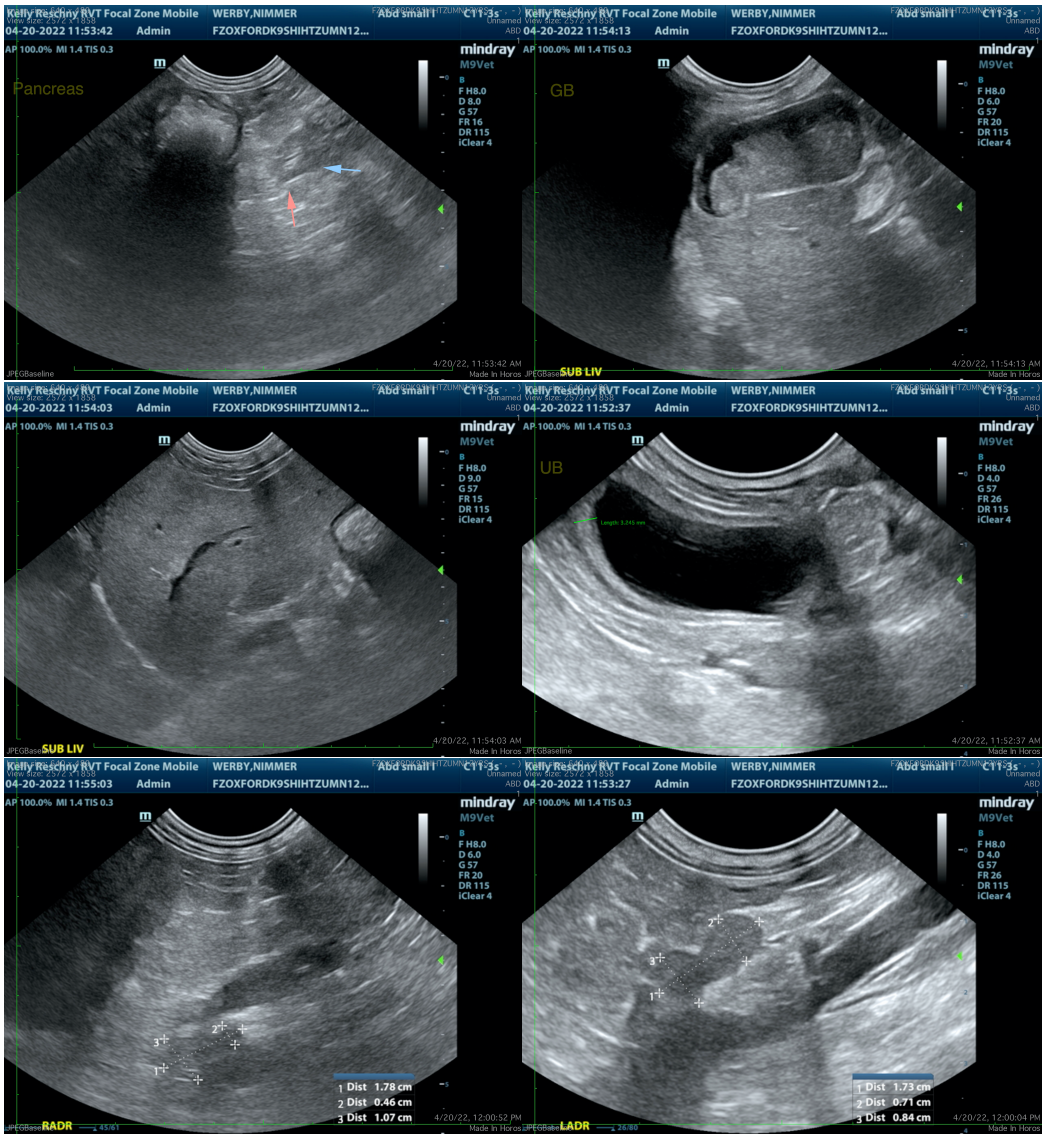
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further diagnostic recommendations could include a fine needle aspirate of the liver if patient's coagulation status is appropriate. However, the liver changes as well as the increased Alk Phos are considered likely secondary to steroid administration, given this patient's history. An empirical course of Ursodiol and Denamarin could be considered with monitoring of liver values for improvement, given the gallbladder sludge.

If gastrointestinal signs such as vomiting, inappetence and/or cranial abdominal pain are appreciated, and/or Alk Phos progresses and/or total bilirubin is increased, close monitoring of the gallbladder with an ultimate cholecystectomy may be indicated in the future.



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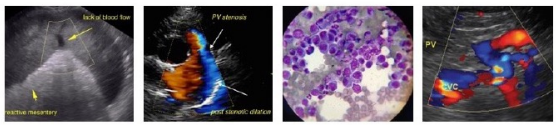

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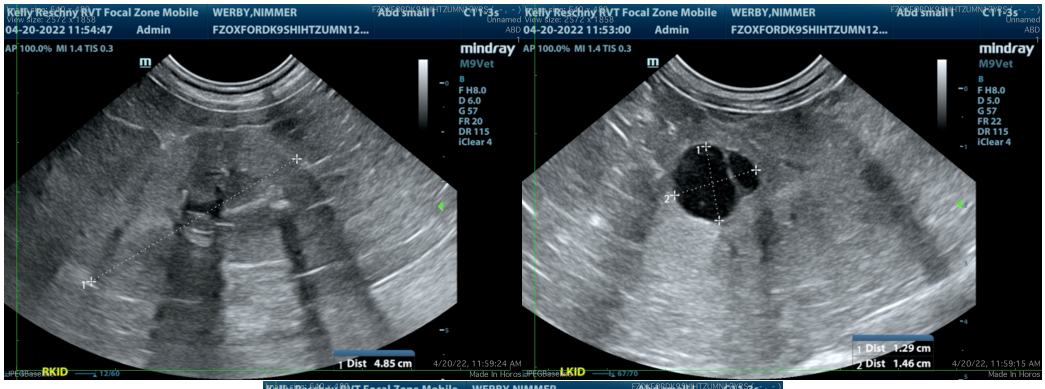

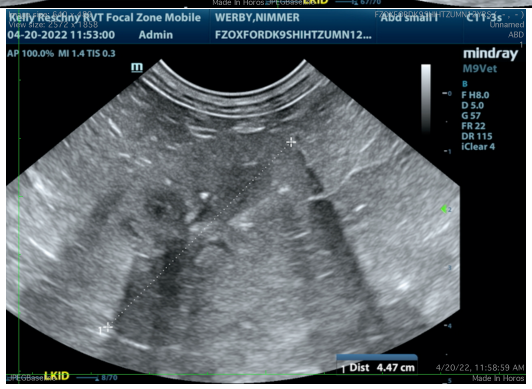

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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