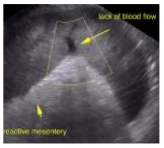
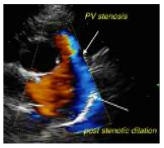
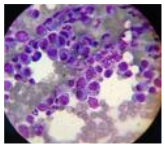
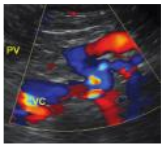
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
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PATIENT
Olive Emmert

SPECIES
Canine

BREED
Chihuahua Cross

SEX
Spayed Female

AGE
14 years

WEIGHT
11.7 lbs

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

IMAGING PERFORMED BY
Jessica Bailes

HOSPITAL NAME
All Creatures Great & Small VC, Corvalis, OR

REFERRING VET
Dr. Chantal Litalien

INVOICE
10826

DATE
4/28/22

PRESENTING CLINICAL SIGNS

History: Elevated liver values noted after bout of pancreatitis 9/21; Recheck labs 1/22 showed stable liver values but NEW elevated TBILI Targeted hepatobiliary U/S at that time: suspicious for cholangiohepatitis, otherwise NSF Started on ursodiol, denamarin and vitamin E On low fat diet d/t hx of pancreatitis Recheck labs 2 months later still show elevated ALT, ALP and TBILI.

Abnormal PE/Chem/CBC/UA Results: NSF on PE Most recent labwork: TP 8.9 (5.2-8.2) Alb 5.2 (2.2-3.9) Alt 129 (10-125) -- was 166 in Jan ALP 601 (23-212) -- was 335 in Jan Tbili 1.8 (0-0.9) -- was 1.9 in Jan

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney presented normal size (4.45 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney presented normal size (4.48 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 corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.29 cm at cranial pole) (0.52 cm at caudal pole) (0.95 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.

The right adrenal gland is normal size (0.38 cm at cranial pole) (0.37 cm at caudal pole) (1.49 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 (1.41 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 prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is moderately distended. The wall is normal in thickness. One to two small, polypoid-like lesions are observed. A small amount of echogenic, dependent to partially dependent debris is observed within the lumen. 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 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 or overt infiltrative disease is noted.

Pancreas

The base and limbs 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

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

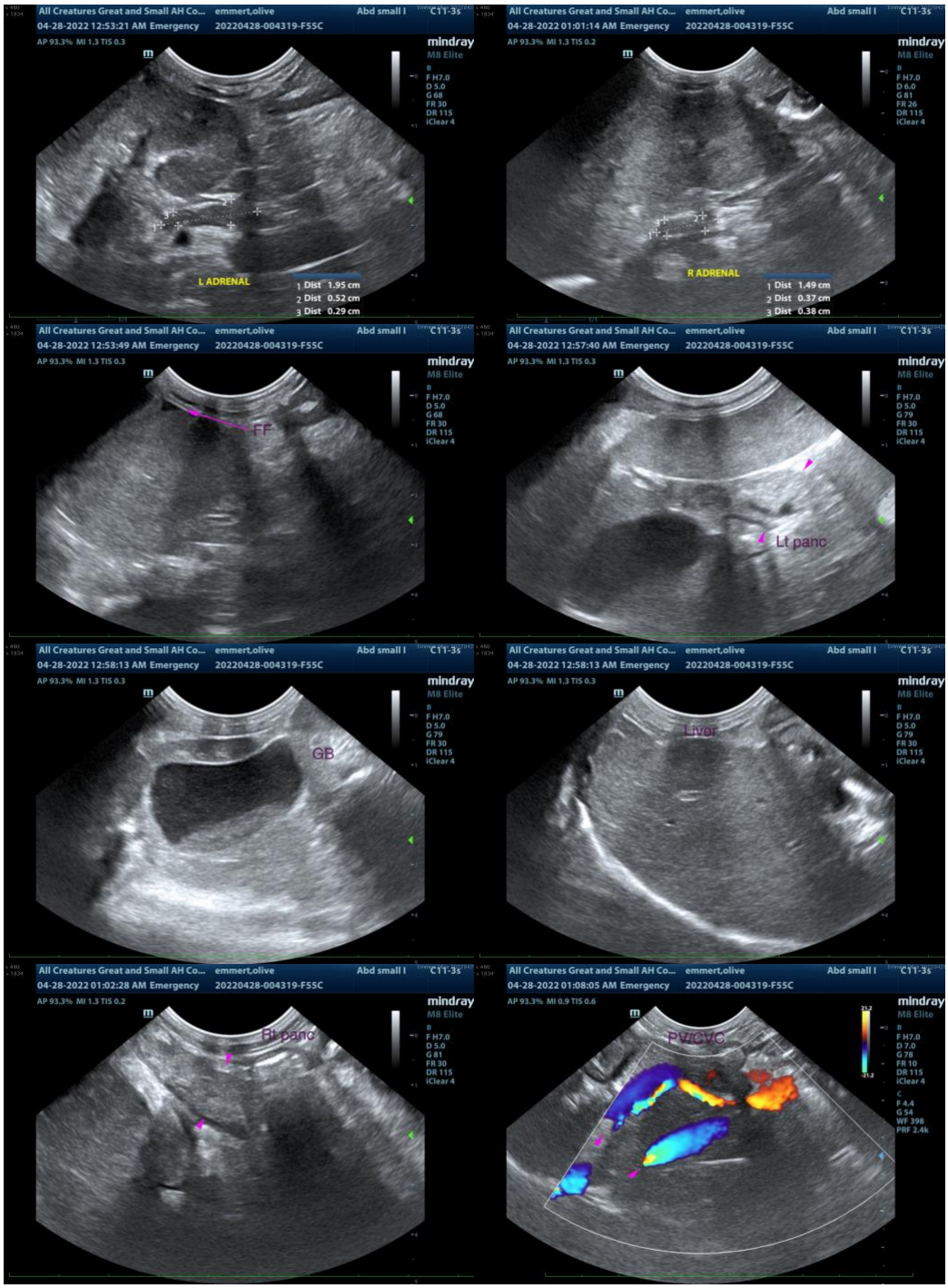
Primary Findings

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Gall bladder debris, non-mucocele
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis, or chronic pancreatitis.
- Trace ascites, the significance of which is unclear. This may be an incidental finding or may be secondary to increased hydrostatic pressure or increased vascular permeability.

*It is unclear whether the mildly elevated total bilirubin is secondary to cholestatic liver disease, or if this finding is artifactual due to hemolysis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider repeating a total bilirubin via a clean jugular stick or a vacutainer to help reduce the potential for artifactual elevation due to hemolysis. If hyperbilirubinemia is persistent, cholestatic liver disease would be of concern and more advanced liver diagnostics (i.e., pre-and postprandial serum bile acids, hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy)) may be warranted. If the total bilirubin normalizes, serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended, with a repeat abdominal ultrasound +/- hepatic tissue sampling, if values increase.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.



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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