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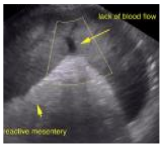
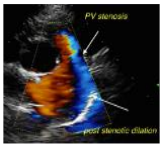
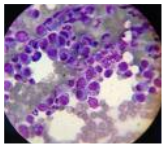
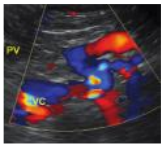
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
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PATIENT

Pebbles Robinson

SPECIES

Canine

BREED

Pitbull Mix

SEX

Spayed Female

AGE

12 years

WEIGHT

72 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Charlie Rodriguez

HOSPITAL NAME

Bethany Family PC

REFERRING VET

Dr. Charlie Rodriguez

INVOICE

10869

DATE

5/5/22

PRESENTING CLINICAL SIGNS

History: Came in for annual exam and aural hematoma. Multiple dermal and sq masses all over body. A volleyball sized mass on shoulder blade was found to be lipoma. Ran bw and scheduled sx for aural hematoma repair. O changed mind and wanted to remove large lipoma do teat cannula for hematoma and u/s based on the blood work.

Abnormal PE/Chem/CBC/UA Results: ALT: 224, alp: 617, TP 7.8, globulin 3.7

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. Along the dorsal wall, a 0.70 x 0.25 cm irregular, echogenic structure/area is observed at the luminal surface. The remaining bladder wall is normal in thickness, with a smooth mucosal surface. A small amount of suspended, echogenic debris is observed within the lumen. There is no evidence of cystic calculi. The cystourethral junction is normal.

The left kidney presented normal size (7.70 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is hyperechoic. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal size (8.38 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is hyperechoic. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline enlarged (0.88 cm at cranial pole) (0.91 cm at caudal pole) (3.30 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 (1.66 cm at cranial pole) (0.84 cm at caudal pole): 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 (1,84 cm in width at the level of the hilus) with a normal capsular contour. A light, micronodular pattern is present throughout the parenchyma. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous in appearance. A few, small, irregular hyperechoic nodules are seen. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A scant amount of suspended, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

Gastrointestinal

The gastric lumen is mildly to moderately distended with ingesta and irregular shadowing material, which is thought to be kibble. The gastric wall is normal in thickness with a normal layering pattern. The small

intestinal lumen is segmentally dilated with chyme. 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 region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen
The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchyma changes are nonspecific and could be secondary to inflammatory disease (i.e., chronic active pancreatitis, bacterial cholangiohepatitis), copper hepatotoxicosis, Leptospirosis or other hepatopathy. Concurrent age-related change (i.e., regenerative nodular hyperplasia, vacuolar hepatopathy and/or age-related remodeling) may also be present.
- The echogenic structure along the dorsal urinary bladder wall could be consistent with an inflammatory focus, emerging tumor (i.e., transitional cell carcinoma) or an aggregation of echogenic debris.

Secondary Findings

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Minor, bilateral age-related renal changes
- Borderline left adrenomegaly

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Regarding the urinary bladder lesion, consider a repeat ultrasound with agitation of the bladder during the scan to determine if the lesion appears more like aggregated debris.

A urine BRAF test can also be considered to further screen for lower urinary tract neoplasia. It should be noted, however, that a negative BRAF test does not completely exclude the possibility of cancer, and further testing may be necessary to get a definitive diagnosis.

Regarding the hepatic changes and elevated ALT, considerations include the following:

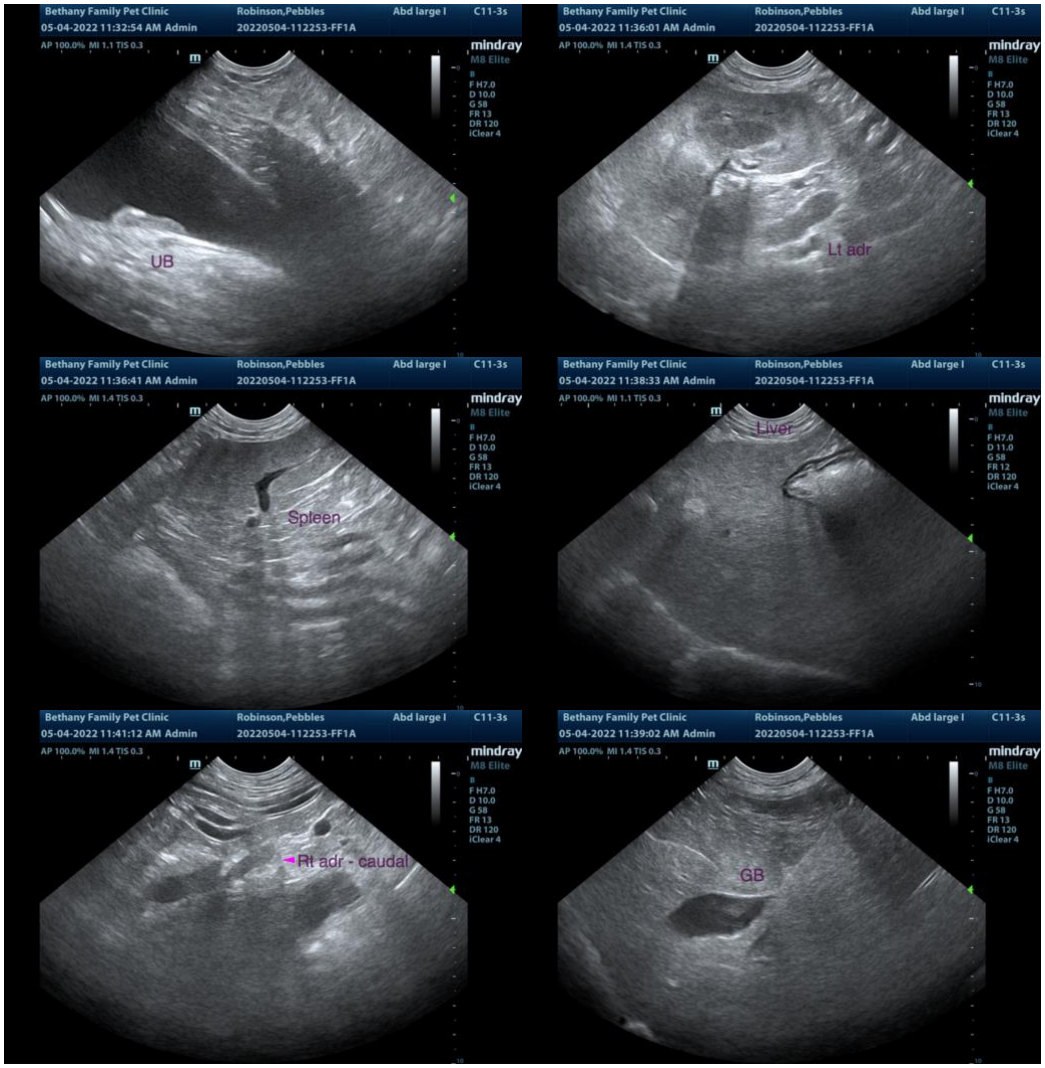
1. Pre-and postprandial serum bile acids

2. Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if the liver enzyme elevation is more acute in nature

3. Hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy). Surgical biopsies are preferred in that they are more likely to represent global organ pathology. If surgery is pursued, acquisition of additional hepatic tissue samples for potential copper quantitation, as well as aerobic and anaerobic bile cultures should also be obtained.

4. Thoracic radiographs should be performed prior to anesthesia to assess cardiopulmonary status.

5. If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.



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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com