



PATIENT PRESENTING CLINICAL SIGNS

Charlie Boyle History: Presented for panting heavily, and having a hard time catching his breath
Abnormal PE/Chem/CBC/UA Results
ALT: 245, ALP: 497, GGT: 24

SPECIES

Canine

BREED

Aussie Doodle

SEX

Neutered Male

AGE

7 years

WEIGHT

25.3 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Isermann

HOSPITAL NAME

Animal EH Volusia

REFERRING VET

Cooper Norton

INVOICE

13976

DATE

8.7.23

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The region of the prostate is not visualized due to its pelvic location.

The left kidney is normal in size (6.15 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size (6.92 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.74 cm at cranial pole) (0.87 cm at caudal pole) with a normal shape and 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 region of the right adrenal gland is evaluated. No obvious pathology is observed in this region.

Spleen

The spleen is normal in size (1.63 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 lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic, partially dependent sludge 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 pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.



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Pancreas

The base and right limb of the pancreas re visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic 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

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

- Nonspecific diffuse hepatopathy. Differentials include regenerative nodular hyperplasia, vacuolar hepatopathy, inflammatory disease (chronic hepatitis, bacterial cholangiohepatitis), infiltrative neoplasia (less likely), reactive hepatopathy, other hepatopathy.
- Gall bladder sludge

Secondary Findings

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Minor bilateral chronic renal changes
- Mild left adrenomegaly. The right adrenal gland is not definitively visualized.

*An obvious cause for the patient's clinical signs is not definitively identified in this study. Considerations include pulmonary disease, cardiovascular disease, underlying metabolic issue, orthopedic/neurologic disease, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess cardiopulmonary status (if not already performed).
- Also consider a baseline blood pressure measurement to assess for systemic hypertension.
- Orthopedic and neurologic examination are recommended to assess for pain, which may cause panting and restlessness.
- Regarding the elevated liver enzymes, consider the following:
 1. Pre-and postprandial serum bile acids
 2. Leptospirosis testing, particularly if the clinical suspicion for disease is high.
 3. +/- hepatic tissue sampling (FNA or biopsy)
 4. Also consider Cushing's testing in the future, if the patient is exhibiting appropriate clinical signs.



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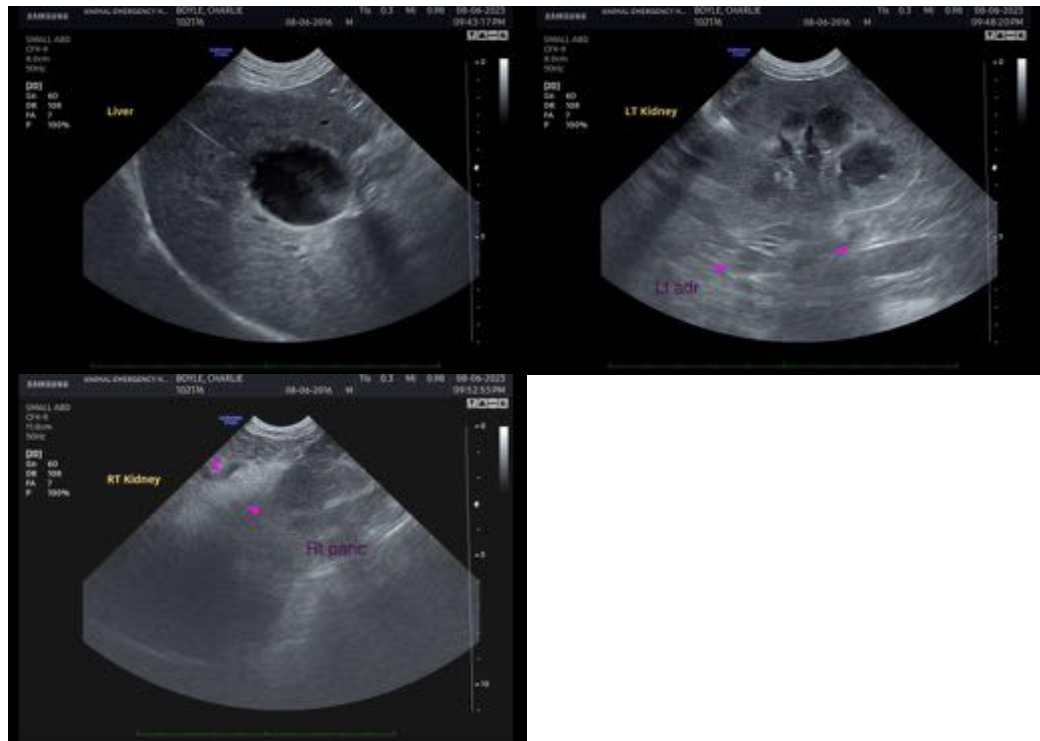
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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