



PATIENT PRESENTING CLINICAL SIGNS

Welby Haenel

SPECIES

Canine

BREED

Golden retriever mix

SEX

Male, neutered

AGE

2/16/08

WEIGHT

28 kg.

INTERPRETED BY

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

IMAGING PERFORMED BY

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(Small Animal Internal
Medicine)

HOSPITAL NAME

Blue Pearl

REFERRING VET

Dr. Shannon Graham

INVOICE

13264

DATE

4/26/22

Welby is a 14 y/o MN golden mix who presents for being restless and having labored breathing. P has been restless for the last 2-3 weeks. P very restless last night and started to have labored breathing. Saw rdvm 2-3 weeks ago who prescribed gabapentin in case it was arthritis. O has not given any gabapentin. Hx of CHF January 2021 and was seen by Dr. Jesty at CVRC and had echocardiogram and diagnosed w/ severe mitral regurgitation and mild tricuspid regurgitation and pulmonary edema. Placed on salix 50mg BID, benazapril 10mg BID and pimpendan 7.5mg BID. No evidence of CHF on radiographs at rdvm 2-3 weeks ago. O has given an extra dose of salix about 3 times over the last week or 2. Normal urination. No vomiting/diarrhea. UTD on vax/prevention. PE: grade 3/6 left heart murmur, lungs wnl, panting but eupnea, no cough, pink mm, cutaneous left anal/perianal soft mass, diarrhea without blood

BUN 33, Creat 1.9, ALT 595, ALP 292, CBC- wnl, USG > 1.050, sediment unremarkable

Arrhythmia was noted on echocardiogram today.

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. A small amount of gravity-dependent mineralized sand as well as a scant amount of echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (1.36 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

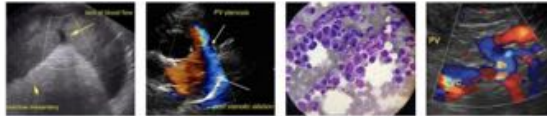
The left kidney is normal size (7.16 cm in length) with a slightly irregular shape. A 4.31 x 3.97 cm fluid filled cyst is present at the cranial pole. The cyst contains echogenic debris and causes some obliteration of the normal renal architecture in this region. In the remainder of the kidney there is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. A few pinpoint hyperechoic to mineralized foci are also observed within the cortex. At least one smaller cortical cyst is seen. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (6.79 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.54 cm at cranial pole) (0.59 cm at caudal pole) (2.87 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 (1.12 cm at cranial pole) (0.65 cm at caudal pole) (2.28 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are



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unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is prominent in size (1.76 cm in width) at the level of the hilus and elongated with rounding at the poles. The parenchyma has a coarse echotexture and is slightly mottled in appearance. A 1.38 cm ill-defined hyperechoic nodule/area is observed in the region of the hilus. Splenic vasculature is normal with no evidence of thrombosis.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is slightly mottled in appearance. No distinct focal lesions are observed. Vascular 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 small amount of echogenic debris, some of which is gravity-dependent and some of which is suspended is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is distended with ingesta/kibble. 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 thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. A several cm segment of colonic wall is thickened (up to 0.54 cm) with retention of the normal layering pattern. No obstructive disease is noted.

Pancreas

A portion of the pancreas is obscured by the gastric distention. In the visualized portions, no obvious pathology is observed.

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:

- Non-specific diffuse hepatopathy. Given the recent spike in ALT, an inflammatory hepatopathy (i.e., bacterial cholangiohepatitis, chronic active hepatitis) is the top differential. Other considerations include hepatotoxicosis (i.e., copper), Leptospirosis, less likely, infiltrative neoplasia. Concurrent regenerative nodular hyperplasia and/or vacuolar hepatopathy may also be present.
- Gallbladder debris- incidental.
- Bilateral, non-specific age-related renal changes with non-obstructive dystrophic mineralization.



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- The large fluid-filled structure in the cranial aspect of the left kidney is most consistent with a cortical cyst. An abscess is also possible but considered less likely.

Secondary Findings:

- Urinary bladder sand.
- The colonic wall changes are most consistent with colitis with a low possibility of emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Empirical treatment for bacterial cholangiohepatitis (i.e., amoxicillin clavulanic acid, metronidazole, Denamarin) should be considered. If liver values do not improve with supportive care, hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy) may be warranted. However, the benefit of hepatic tissue sampling must be weighed against the risk of anesthesia given the patient's cardiac disease.
- Given the patient's arrhythmia, also consider an ECG and baseline blood pressure measurement.
- Given the azotemia and sonographic renal changes, a urine culture and sensitivity is also recommended.
- Given the history of diarrhea and the clinical changes, consider initiation of a probiotic (i.e., Visbiome or Provable Forte).
- Further recommendations regarding the heart should be based on the echocardiogram report.





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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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