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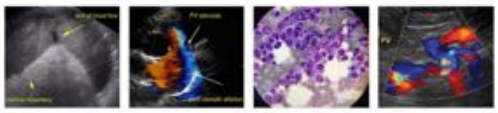

SonoPath
Clinical Sonography & Telecytology
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PATIENT

Duke Cabral

SPECIES

Canine

BREED

Bolognese

SEX

Neutered Male

AGE

9 years

WEIGHT

11.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Anchor AH

REFERRING VET

Katherine Pietsch, DVM

INVOICE

12370

DATE

3.9.23

PRESENTING CLINICAL SIGNS

History: Historically managed for IBD, bladder stones. KCS, elevation in liver enzymes over last few years, liver enzyme changes and upcoming dental cleaning prompted recheck AUS. GI episodes started in May 2015, diarrhea (large bowel 2-3x per month) and intermittently vomiting. Has been mostly well managed on medications. Bladder stone diagnosed at OSVS in 2021, not clinical for bladder stone o elected for benign neglect/monitoring. On Pepcid 5mg SID, and Reglan 5mg 1/4 tab BID. -Previous AUS (7/7/22 R. McKenzie Daniel, DVM,) mild urinary bladder sand, mild chronic renal charge, chronic hepatopathy.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall is slightly thickened (up to 0.22 cm) with a minimally irregular mucosal surface. A scant amount of echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The prostate is subjectively normal in size (0.77 cm in width) with normal curvilinear peripheral contours. One to two small, hyperechoic mineralized foci are observed. The parenchyma is otherwise homogenous. The prostatic urethra is not overtly dilated.

The left kidney is normal in size (3.73 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few small nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal in size (3.96 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few small nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.50 cm at cranial pole) (0.50 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.

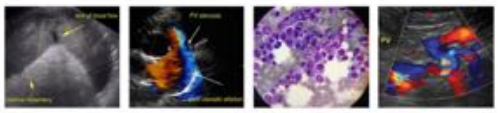
The right adrenal gland is in normal size (0.36 cm at cranial pole) (0.44 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.29 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. 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 diff mottled and heterogenous, with numerous, varying-sized hypoechoic nodules throughout the organ (the largest measuring 1.99 cm in diameter). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.



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The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of partially dependent echogenic debris/sludge is observed within the lumen. The debris appears to extend into the proximal cystic duct. The common bile duct is 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 thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas

The right limb 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

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes are concerning for infiltrative neoplasia (i.e., lymphoma). However, a severe inflammatory process or other hepatopathy is also possible.
- The gall bladder sludge may be secondary to cholestasis, fasting, or less likely, an emerging mucocele.

Secondary Findings

- The splenic parenchymal changes trend toward the benign (i.e., lymphoid hyperplasia or similar). However, emerging neoplasia is possible.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral chronic renal changes with nonobstructive nephrocalcinosis
- The urinary bladder wall changes could be consistent with cystitis or may be artifactual due to lack of full repletion. Bladder stones are not seen on today's study.
- The hyperechoic foci within the prostatic parenchyma, may represent benign age-related change or imaging artifact. Occasionally prostatic mineralization can be associated with a neoplasia process. Correlation with the patient's clinical history is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess cardiopulmonary status.
- Fine-needle aspirates of the liver are recommended (if clotting status is appropriate). Twenty-five gauge-needles should be used. If the cytology results are inconclusive, laparoscopic, or surgical biopsies may be necessary to get a definitive diagnosis.

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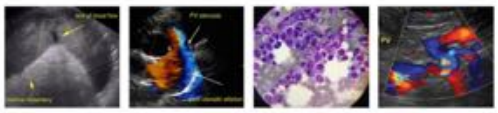

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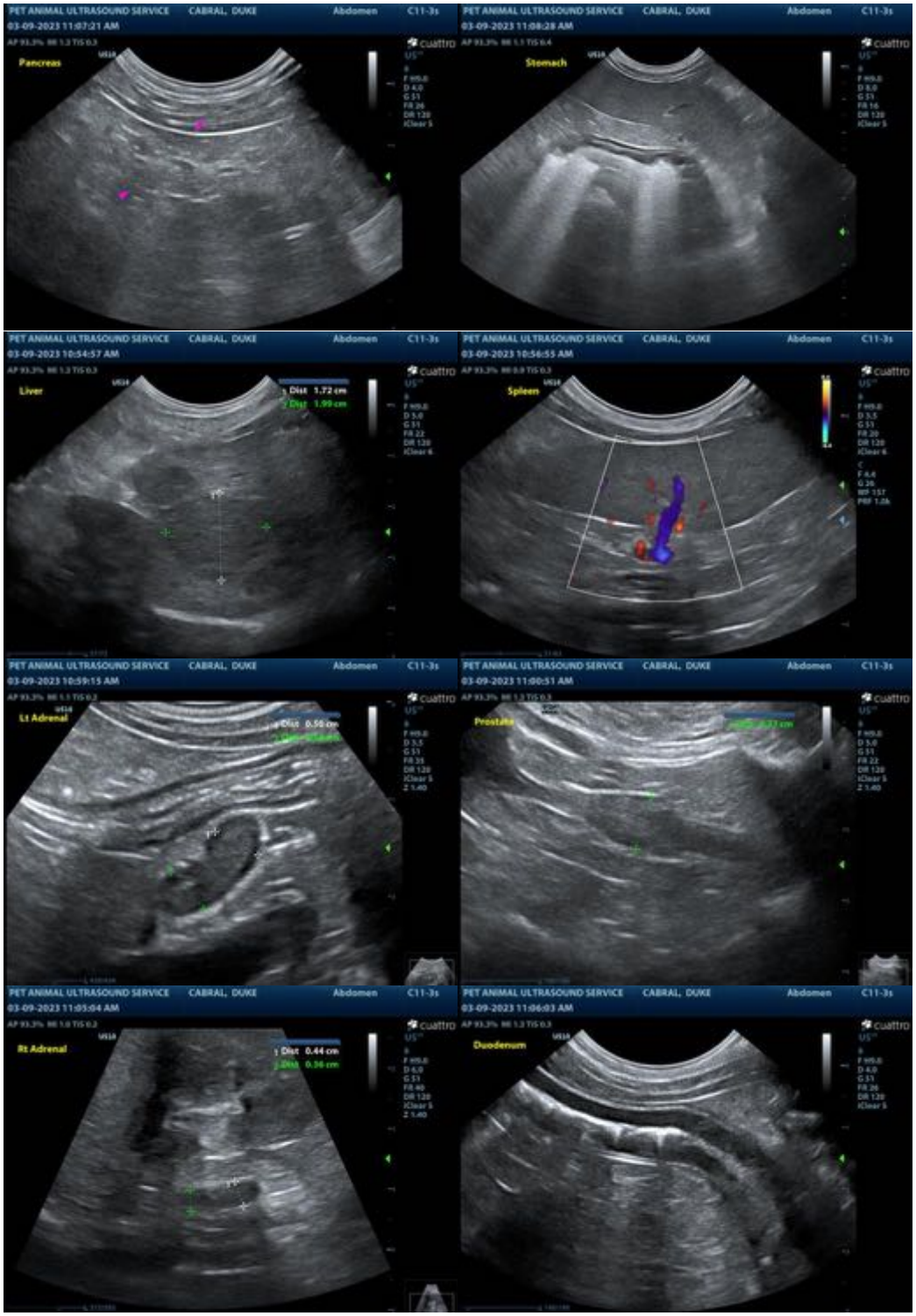

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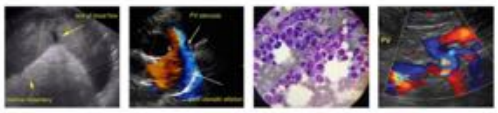

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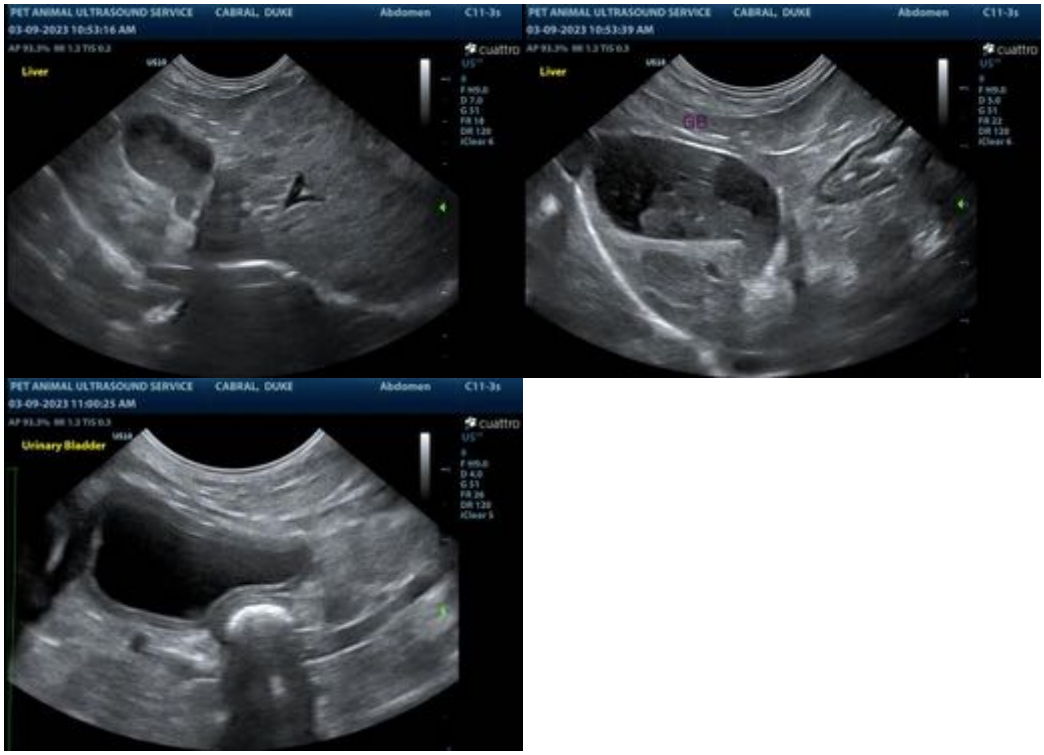

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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