

PATIENT PRESENTING CLINICAL SIGNS

Meli Santos
SPECIES History: Presented as a referral for an abdominal ultrasound. Pt presenting complain to rDVM was pain when defecating. Pt has been depressed and lethargic. Stool is soft, No v/d. Bloodwork was recently done and showed changes with the kidneys, see below. Pt is on Orbax. Ultrasound to evaluate systemically specially the kidneys. Pt has been receiving IV fluids during the day and then go home at night for the past couple days.
Canine Abnormal PE/Chem/CBC/UA Results: BW: Chem Increased: ALT 121 BUN 46 CRE 1.8 K+ 6.4 Urinalysis Small protein presence 30 mg/dL pH 6.0 Large Blood presence 200 Ery/ul Specific Gravity 1.015 CBC Lym 0.93 MCH 16.4 MCHC 27.4 PLT 572 SDMA 17.6

BREED

Pekingese

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX 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. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.
Spayed Female

AGE

13 years

The left kidney is normal in size (4.36 cm in length); with an irregular shape. The cortex is variably thickened and hyperechoic. There is moderate loss of corticomedullary distinction. Several cortical cysts are visualized. Moderate pyelectasia is present (0.59 cm in the transverse plane). There is no evidence of nephroliths or hydroureter.

WEIGHT

13 lbs

The right kidney is normal in size (4.69 cm in length); with an irregular shape. The cortex is variably thickened and hyperechoic. There is moderate loss of corticomedullary distinction. Several cortical cysts are visualized. Mild pyelectasia is present (0.33 cm in the transverse plane). There is no evidence of nephroliths or hydroureter.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is enlarged (1.00 cm at cranial pole) (0.57 cm at caudal pole) (2.02 cm in length); with a slightly irregular shape. A 1.53 x 0.84 cm irregular, hyperechoic to heterogenous nodule is observed at the cranial to mid aspect. Glandular echogenicity and detail at the caudal aspect are relatively, normal except for a small hyperechoic area. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is normal size (0.87 cm at cranial pole) (0.43 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.

IMAGING PERFORMED BY

Dr. G. Ferrer, DVM

Spleen

The spleen is normal in size (1.35 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Several irregular myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

HOSPITAL NAME

Paseos Vet. Center

REFERRING VET

Dr. Marzan

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.

INVOICE

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The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic, partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal.

DATE

4/20/22

Gastrointestinal

The gastric lumen is moderately distended with ingesta. 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 wall of the descending colon is mildly thickened (up to 0.42 cm) with retention of the normal layering pattern. 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

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

- Bilateral chronic nephropathy with pyelectasia, more severe on the right. The pyelectasia may be secondary to pyelonephritis, IV fluid therapy, age-related remodeling, or some combination thereof.
- The left adrenal nodule could be consistent with nodular hyperplasia or an emerging tumor (i.e., adenoma, adenocarcinoma, pheochromocytoma).

Secondary 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. Inflammatory disease is also a possibility, particularly in light of the mildly elevated ALT. Infiltrative neoplasia is possible but considered unlikely in this patient.
- Gall bladder debris/sludge, non-mucocele
- The colonic wall changes are most consistent with an inflammatory process with a lower possibility of emerging neoplasia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

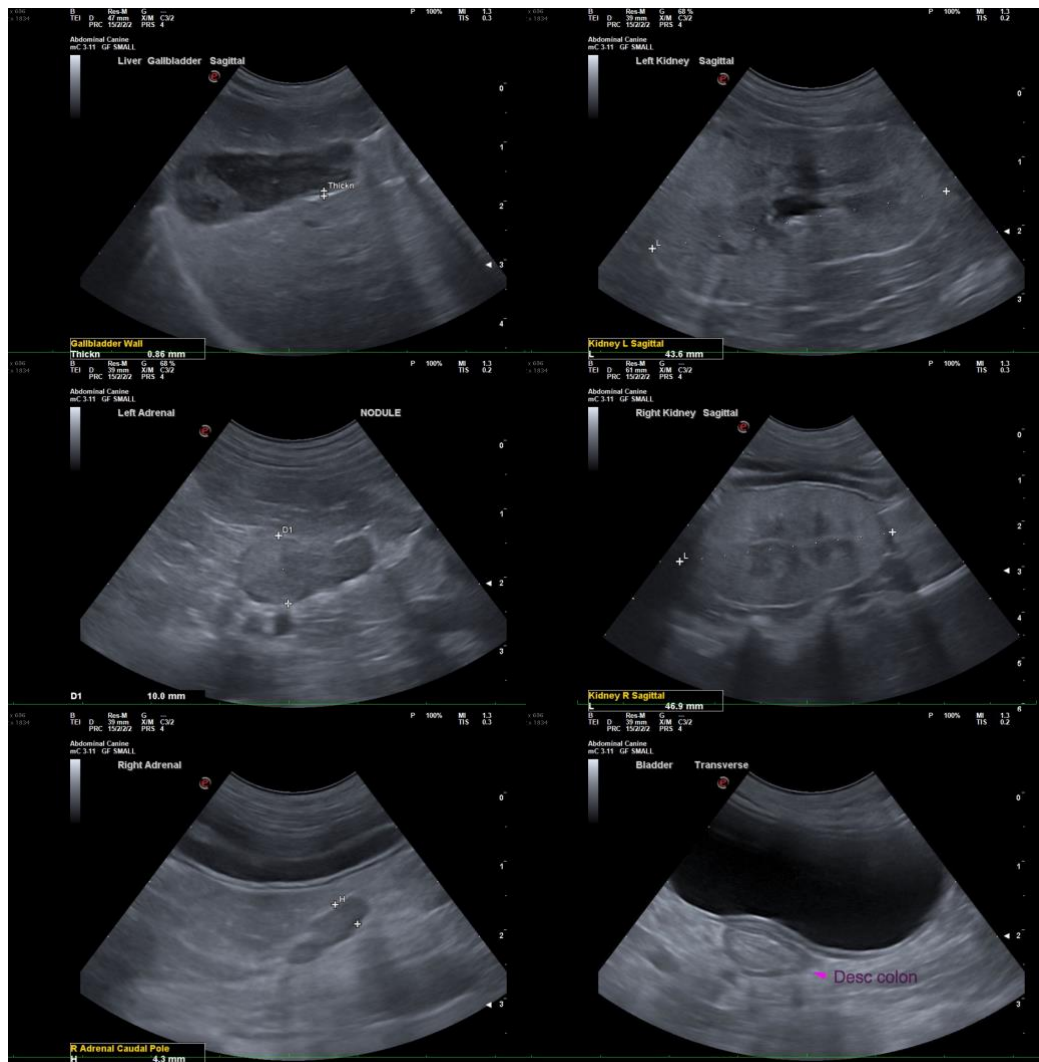
A urine culture and sensitivity is recommended, preferably on a pre-antibiotic sample or a sample collected 5-7 days following antibiotic therapy. Also consider a UPC on a non-hematuric sample. A baseline blood pressure measurement should also be considered.

Continued IV fluid diuresis, antibiotic therapy and supportive care is recommended.

Regarding the soft stools and colonic wall changes, a fecal evaluation for ova and Giardia and GI panel (i.e., serum cobalamin and folate, TLI and PLI) are recommended, +/- initiation of a limited antigen, restricted protein diet.

Given the patient's age and the fact that she is undergoing fluid diuresis, thoracic radiographs (three-view) are recommended to evaluate cardiopulmonary status.

Regarding the adrenal nodule, if the patient is exhibiting clinical signs or if further evaluation is desired, consider a low-dose dexamethasone suppression test and urine/catecholamine levels to help determine if a functional tumor is present. Alternatively, a repeat ultrasound can be considered in 1-2 months to assess for progression/growth.



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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