

PATIENT

Mikee Acosta

SPECIES

Canine

PRESENTING CLINICAL SIGNS

History: lab-work performed before a sedated procedure on 2/13/23 showed markedly elevated ALP and ALT (ALP 1343, ALT 278). Px started on Clavamox and Hepaticlear Pro liver supplement and labs rechecked on 3/28/23 and liver enzymes still markedly elevated (TP 7.6 (H) ALT 216 (H) ALP 1401 (H) K 5.7 (H) PLT 597 (H))

Abnormal PE/Chem/CBC/UA Results: BP requested....

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Mini Dachshund

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.

SEX

Intact Male

The prostate is enlarged (2.13 cm in width) with a slightly irregular shape. Parenchyma is mildly hyperechoic relative to surrounding omental fat and slightly heterogenous in appearance. No distinct focal lesions are observed. The prostatic urethra is not overtly dilated.

AGE

14 years

The left kidney is normal in size (5.54 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is isoechoic relative to the spleen. There is mild to moderate loss of corticomedullary distinction. A few small cortical cysts are seen. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

WEIGHT

11 kg

The right kidney is normal in size (5.70 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. The cortex is isoechoic relative to the spleen. There is mild to moderate loss of corticomedullary distinction. A few small cortical cysts are seen. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is borderline enlarged (0.47 cm at cranial pole) (0.67 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.

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

The right adrenal gland is enlarged and irregular (1.45 cm at cranial pole) (1.42 cm at caudal pole) (4.01 cm in length) with a mass effect. The parenchyma is heterogenous with loss of glandular detail. A 0.97 cm tumor thrombus is observed within the caudal vena cava, extending from the right adrenal mass.

HOSPITAL NAME

Truckee Meadows
VH

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. Two to three small hypoechoic nodules are visualized (the largest measuring 0.87 cm in diameter). Splenic vasculature is normal.

REFERRING VET

Dr Rachel Kuester

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogenous in appearance, with a few vague, ill-defined isoechoic-to-hyperechoic nodules observed (the largest measuring 2.29 cm in diameter). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

INVOICE

12709

DATE

4.6.23

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, partially dependent, echogenic debris/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 ileocecolic 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 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

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

Other

A brief visualization of the thorax reveals a few suspected ringdown lesions.

The left testicle is subjectively normal in size (left: 1.71 x 1.18 cm). A few ill-defined hypoechoic nodules are observed within the parenchyma. The right testicle is subjectively enlarged (right: 2.64 x 2.02 cm). The parenchyma is hyperechoic and mottled in appearance, with a few ill-defined hypoechoic nodules/areas.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Right adrenal mass with extension/invasion into the caudal vena cava. Neoplasia (i.e., adenocarcinoma, pheochromocytoma) is suspected with a lower possibility of a benign process.

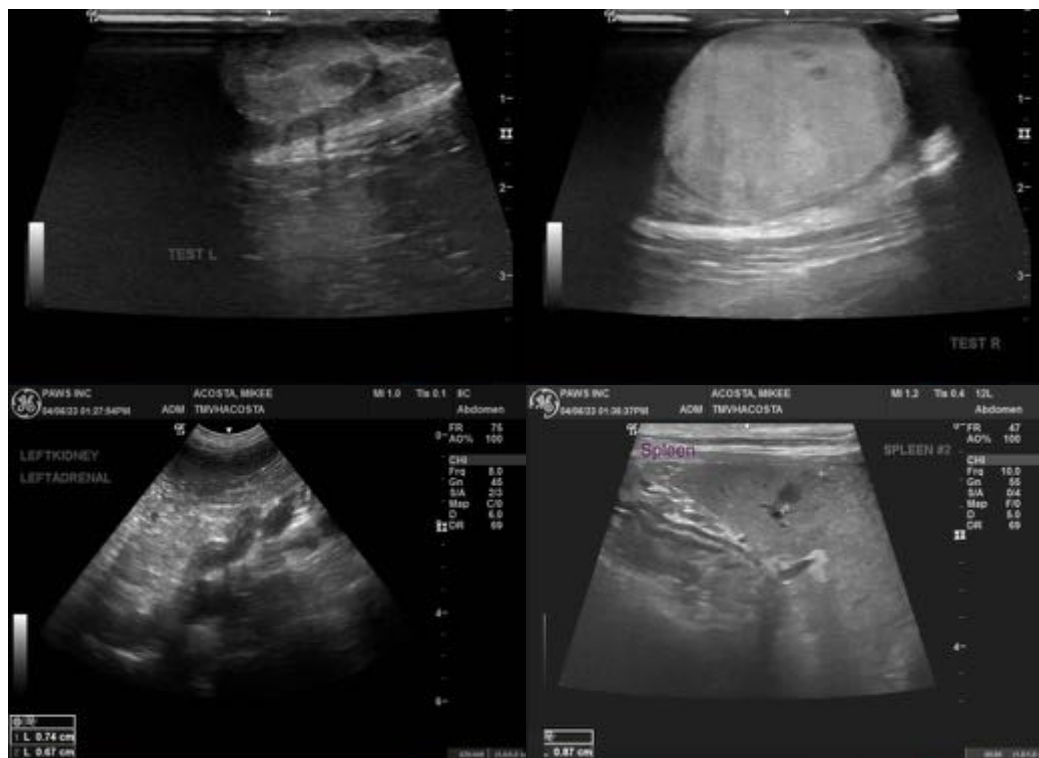
Secondary Findings

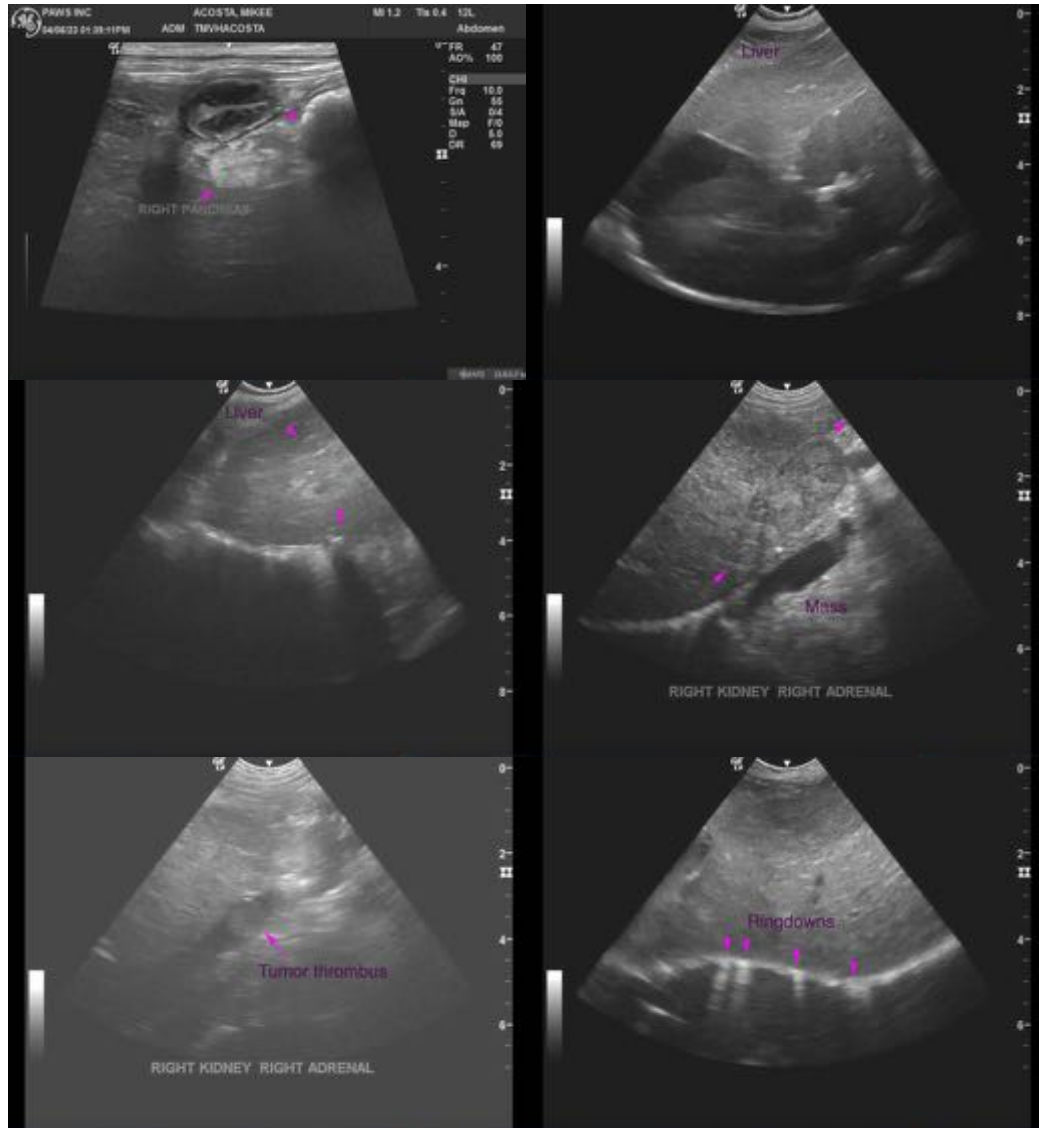
- Bilateral chronic age-related renal changes with dystrophic mineralization and cortical cysts
- The splenic nodules trend toward the benign (i.e., focus of lymphoid hyperplasia or similar) with a lower possibility of emerging neoplasia.
- The hepatic parenchymal changes, including the nodules, could be consistent with a benign process (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy) with a lower possibility of other hepatopathies (i.e., inflammatory disease, fibrosis, infiltrative neoplasia, other).
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prostate changes are consistent with benign prostatic hyperplasia.
- The suspected ringdown lesions in the thorax are suggestive of pulmonary parenchymal disease.

- The right testicular changes are concerning for a neoplasia. The left testicular changes could be consistent with age-related remodeling or less likely, an emerging tumor.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Regarding the right adrenal mass, consider the following:
 1. Baseline blood pressure measurement
 2. Further testing for a functional tumor (i.e., low-dose dexamethasone suppression test, urine/blood catecholamine levels).
 3. An abdominal CT scan would be useful in better evaluating the extent of the disease, particularly if an adrenalectomy is being considered. If surgery is pursued, castration is recommended with submission of the testicles for histopathology.





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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