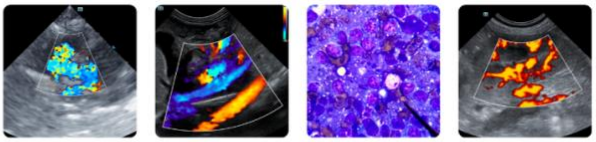

PATIENT

Puck Braun

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

9

WEIGHT

89.6

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Susan Lincoski

HOSPITAL NAME

University Drive Veterinary Hopsital

REFERRING VET

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INVOICE

14591

DATE

03/24/26

PRESENTING CLINICAL SIGNS

- WEIGHT LOSS: 10lbs. T = 102.4
- Patient presents for a variety of issues:
- 1) Left sided head tilt with facial sagging, sunken left eye.
- 2) Right eye not visual?
- 3) Not eating the past couple of days.
- 4) Licking front left paw? Hesitant moving and jumping on things etc.
- ALT elevation

CBC - mild anemia (HCT 37%), low normal plt (142K) Chem - elevated Ca (12.6), TP > 12.0, globulin > 9.4, ALT (1365) 4dx - anaplasma positive. Was positive last year, so hard to know if a new finding or not. PE: Panicky when looking at face. Does not seem off balance thought, pretty stable. Left sided muzzle is sagging, left eye is sunken inwards, left sided head tilt. Eyes: Right - possibly partially luxated lens? No menace response present. PLR minimal. Does not appear visual in this eye. Left eye - sunken into globe, appears visual, menace response present, PLR minimal. Abdomen - suspect organomegaly. Non painful otherwise. Had a lot of gas. Owner notes gurgly guts yesterday.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The prostate is unable to be visualized in these images.

Left kidney is normal in size (6.86 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Mild pyelectasia was present bilaterally.

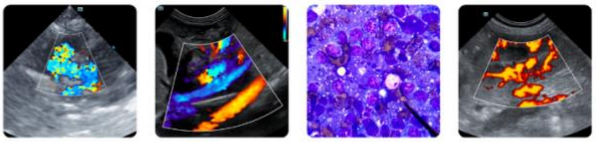
Right kidney is normal in size (7.38 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed.

Adrenal Glands

The areas of both adrenal glands are examined without evident adrenal gland pathology, but they're difficult to fully visualize/isolate for measurements.

Spleen

Spleen is subjectively large in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Splenic vasculature appears normal. The spleen is folded upon itself, which is a positional non-pathologic variant. Several non-capsule disrupting hypoechoic nodules are noted throughout the spleen, ranging between 0.6 and 0.8 cm in diameter. Additionally, in the final image, there appears to be an approximately 4.0 cm to 5.0 cm in diameter homogenous isoechoic rounded bulge that in previous images that were labeled right, I thought could potentially be liver due to the right-sided label. However, I believe the bulge is spleen.



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Liver

Liver is subjectively enlarged (swollen contour) with a diffusely mildly coarse architecture and subtly increased portal markings. Mildly mixed echogenic changes are noted diffusely. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with a small to moderate amount of echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta/chyme. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- An obvious cause for the subtle liver changes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, other reactive hepatopathy, infiltrative neoplasia, etc. cannot be definitively ruled out.
- Splenomegaly- can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- Several hypo- to anechoic splenic nodules- likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia can mimic benign lesions and cannot be ruled out.
- Mild bilateral pyelectasia.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

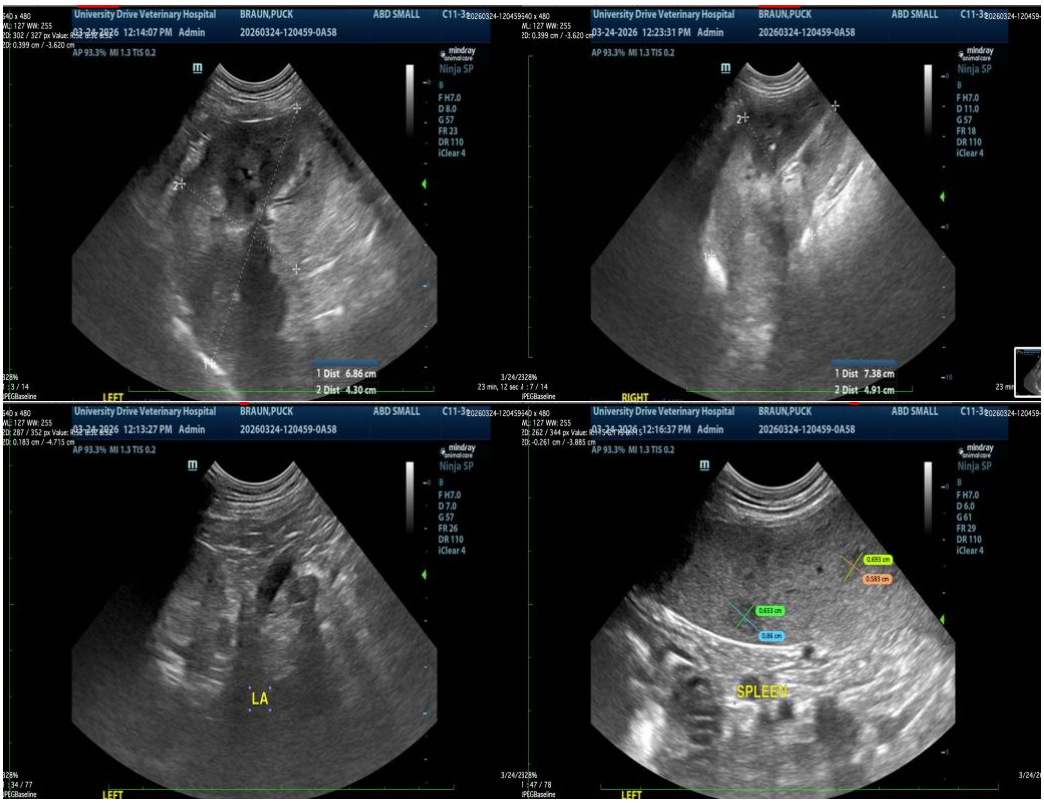
Given patient's reported laboratory changes, a malignancy panel (PTH, PTHrP, iCa) to Michigan State College of Veterinary Medicine is recommended for further investigation of the reported hypercalcemia.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

Fine needle aspirates of the liver and spleen are recommended if patient's coagulation status is appropriate.

Additionally, if not recently evaluated, a thorough rectal/perianal exam is recommended.

Other than supportive/symptomatic medical management of clinical signs, further therapeutic and diagnostic recommendations are largely dependent on results of the initial evaluation described above, but could include bile acids if total bilirubin is not increased, infectious disease evaluation, consultation with a veterinary neurologist or advanced imaging, etc.



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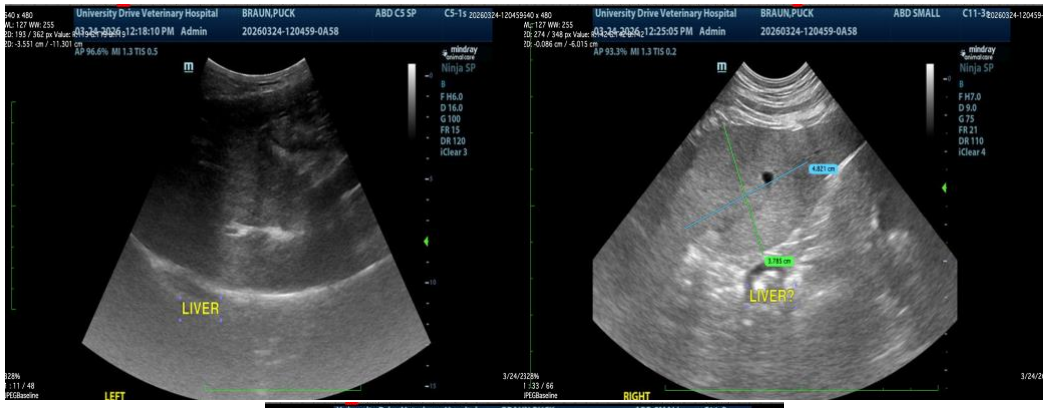

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

info@sonopath.com