**DATE**

05/23/2022

PRESENTING CLINICAL SIGNS

Presented for dental prophylaxis on 5/17. Pre-anesthetic lab work noted an elevated ALT. Abdominal radiographs noted below.

PATIENT

Cerberus Millsap

Current Medications: Clavamox Chewable Tablet 375 mg Give 1 tablet, by mouth, every 12 hours. Give with food. Clavamox 62.5mg Tablet Give 1 tablet, by mouth, every 12 hours. Give with food. Denamarin Advanced Large Dog (> 51 lbs) Use as directed.

SPECIES

Canine

Lab Results: See attached.
Radiographs: Radiology report:THORAX AND ABDOMEN May 17, 2022: 3 radiographs are provided for interpretation.

BREED

Labrador Mix

FINDINGS:

There is some pericardial fat which is incidental. The cardiac silhouette is of normal size and shape. The pulmonary vessels, the caudal vena cava and the aorta are of normal size and shape. Diffusely throughout the

SEX

MN

lungs, mild bronchial and mild interstitial patterns are identified. These are within the range of incidental age-related changes. Multiple, small,

AGE

14 yr

highly opaque structures are identified throughout the lungs and most likely correspond to a combination of end-on pulmonary blood vessels and incidental mineralized pulmonary osteomas. No soft tissue opacity nodule is detected. No lesion is detected in the pleural space. No mediastinal mass or lymphadenopathy is identified. The esophagus and the trachea are radiographically normal. No lesion is detected in the gastrointestinal tract. There is hepatomegaly. No lesion is detected in the spleen, the kidneys and the urinary bladder. The prostate is visible and measures around 2 cm which is considered enlarged for the reported

WEIGHT

70lb

signalment (male neutered). No lesion is identified in the included skeletal structures. **CONCLUSIONS:** No lesion is detected in the thorax.No radiographic evidence of thoracic metastasis is identified.

INTERPRETED BYEric Lindquist, DMV
DABVP, Cert. IVUSS

However, very small thoracic metastasis cannot be totally excluded based on survey radiographs due to limited sensitivity. Hepatomegaly is a nonspecific finding and may be associated with hepatopathy secondary to endocrinopathy (such as Cushing's disease), metabolic disease or toxicity, nodular hyperplasia, inflammation or neoplasia. There is suspicion for prostatomegaly. In a patient of the reported signalment (neutered), this would be most commonly associated with a neoplastic lesion (most commonly adenocarcinoma). Incomplete involution of the organ cannot be totally excluded. **RECOMMENDATIONS:** Abdominal ultrasonography or computed tomography could be beneficial to further evaluate the abdominal organs. Rectal palpation could also be beneficial.

HOSPITAL NAMELake Shore Pet
Hospital

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

REFERRING VET

Dr. Ashley

Imaging Performed By:

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**INVOICE**

10657ag

Urinary System

The urinary bladder, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The kidneys revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 6.45 cm in length.

The residual prostate was uniform in appearance measuring 1.56 cm.

Adrenal Glands

The left adrenal gland was mildly enlarged with slight phrenic vein occupation and irregular contour. The left adrenal gland measured 3.26 cm in length by 1.43 cm caudal pole width by 1.18 cm cranial pole width.

The right adrenal gland was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 2.8 cm in length by 1.05 cm caudal pole width by 0.88 cm cranial pole width.

Spleen

The spleen presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The liver presented heterogenous parenchyma with increased portal markings and coarse architecture. Slight undulating capsular contour was noted. The gallbladder presented some dependent sludgy debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

Gastrointestinal

Examination of the gastrointestinal tract revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

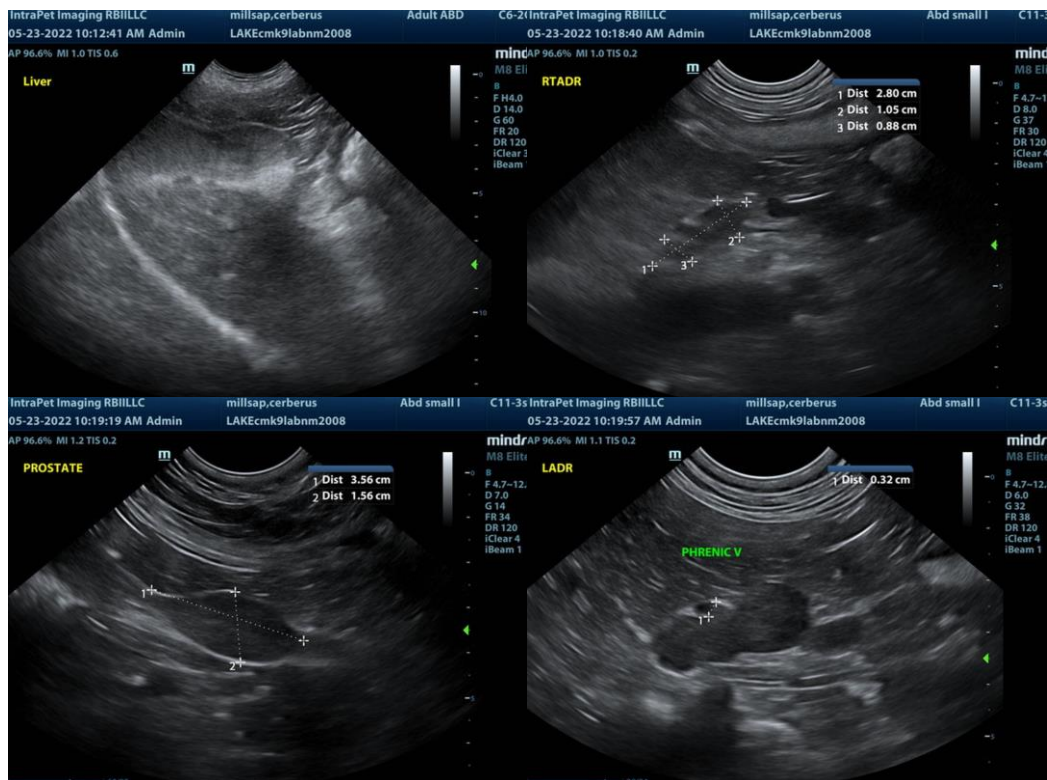
The base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

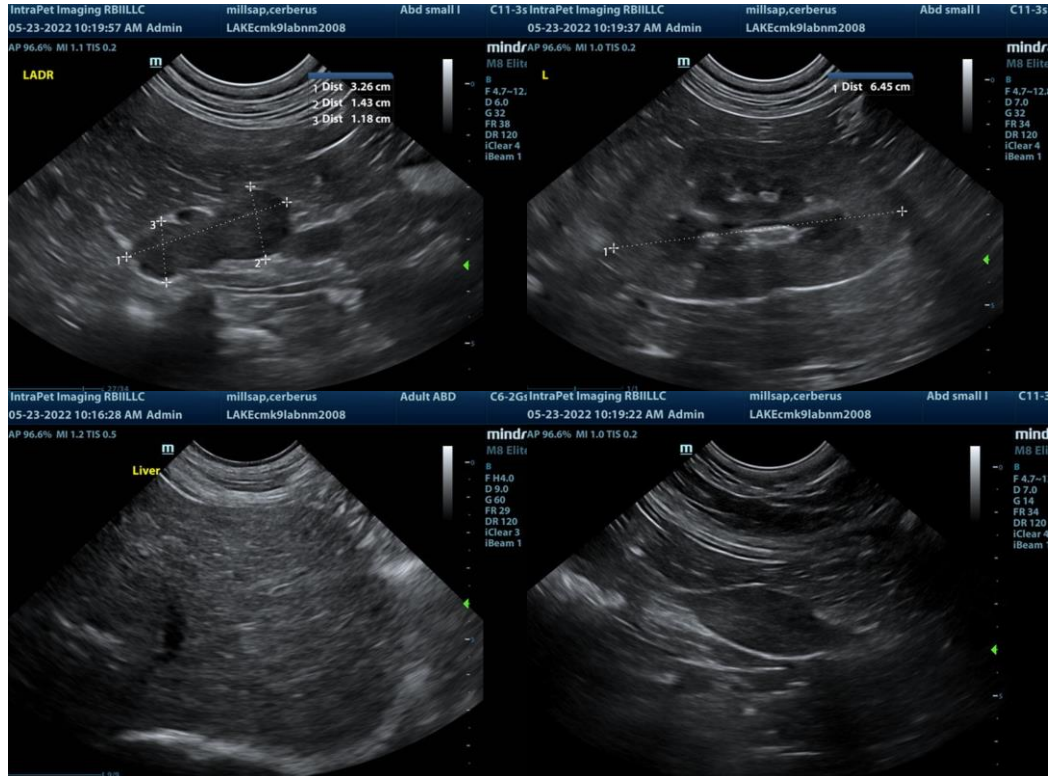
ULTRASONOGRAPHIC FINDINGS

- Enlarged irregular left adrenal gland with slight phrenic vein occupation-concern for carcinoma or pheochromocytoma given the phrenic vein occupation, this may be early thrombus or neoplastic proliferation. Given the enlargement and irregular contour of the left adrenal gland, concern for early phrenic vein invasion is of higher concern. Serial BP is warranted.
- Hepatic remodeling-nonspecific inflammatory hepatopathy
- Age related renal changes
- The prostate is slightly enlarged for a neutered male however it was uniform with no suspicion of neoplasia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The optimal approach would be left adrenalectomy with hepatic biopsy. If USG is <1.020 and the patient appears Cushingoid, adrenal dependent Cushing's disease could be possible or nonfunctional carcinoma. Hyperplasia with minor phrenic vein thrombus is also possible. If systemic hypertension is present then urine catecholamine is indicated to assess for pheochromocytoma.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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