



PATIENT

Brownie Santiago

SPECIES

Canine

BREED

Beagle Mix

SEX

Neutered male

AGE

12 years

WEIGHT

22.8 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Ammeraal

HOSPITAL NAME

Sova

REFERRING VET

Dr. Ammeraal

INVOICE

92819

DATE

11/2/21

PRESENTING CLINICAL SIGNS

History: Patient noted to be drinking more on and off., Mrs. noted some eyelid masses and intradermal masses

Abnormal PE/Chem/CBC/UA Results: Grade 3/6 Murmur, Inflamed follicular cyst, ALP 6393U/L, ALT 173 U/L, GGT pending in house.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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 was noted. Ureteral papillae were normal.

The residual prostate measured 0.5 cm.

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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Slight mineralization was noted and non-obstructive. The left kidney measured 5.36 cm. The right kidney measured 5.2 cm.

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 2.27 x 0.79 cm at the cranial pole and 0.77 cm at the caudal pole. The left adrenal gland measured 2.11 x 0.83 cm at the cranial pole and 0.83 cm at the caudal pole.

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 was noted.

Liver

The **liver** was uniform enlarged with gallbladder polyps. Minor, excessive debris was noted. This is consistent with emerging mucocele formation. The hepatic parenchyma was uniform with generalized enlarged possibly owing to underlying endocrinopathy.



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Gastrointestinal

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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.

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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.

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ULTRASONOGRAPHIC FINDINGS

Subjectively benign vacuolar hepatopathy pattern with emerging mucocele.

AGE

12 years

Mild bilateral adrenal enlargement.

Age related renal changes with slight mineralization.

WEIGHT

22.8 lbs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the necessity for anesthesia in this patient I recommend bile acid profile prior to anesthesia. Ultrasound-guided FNA could be considered at the time of the dental procedure. Given the heart murmur if an echocardiogram has not been performed, then I recommend echocardiogram prior to anesthesia. If urine specific gravity is less than 1.020 repeatedly then work-up for PDH, Cushing's is warranted as the adrenal glands appear slightly swollen bilaterally. There was no evidence of neoplasia. Ursodiol therapy is appropriate as a preventative in this patient's long term protocol.

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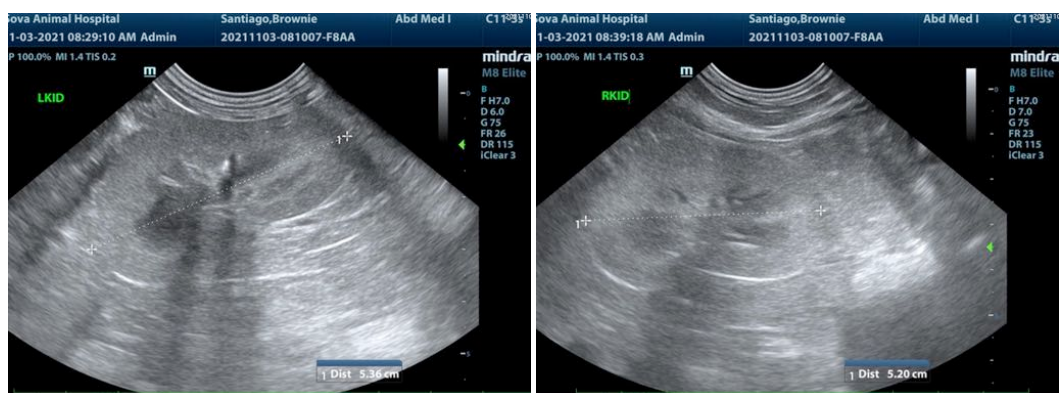
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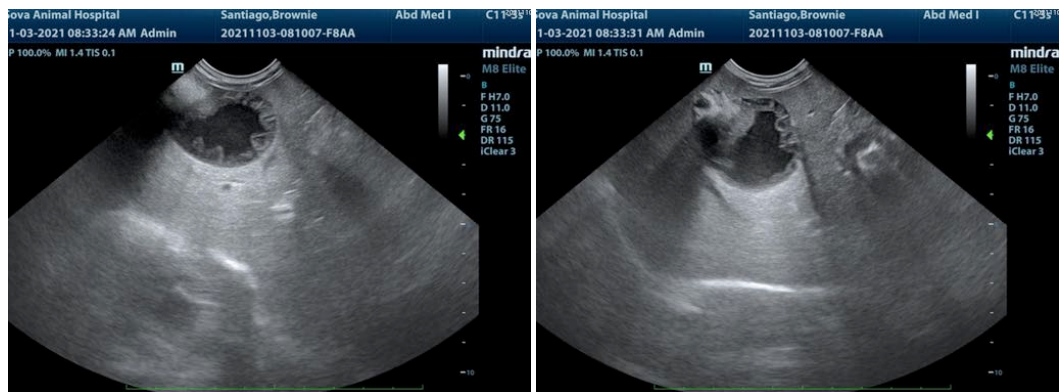
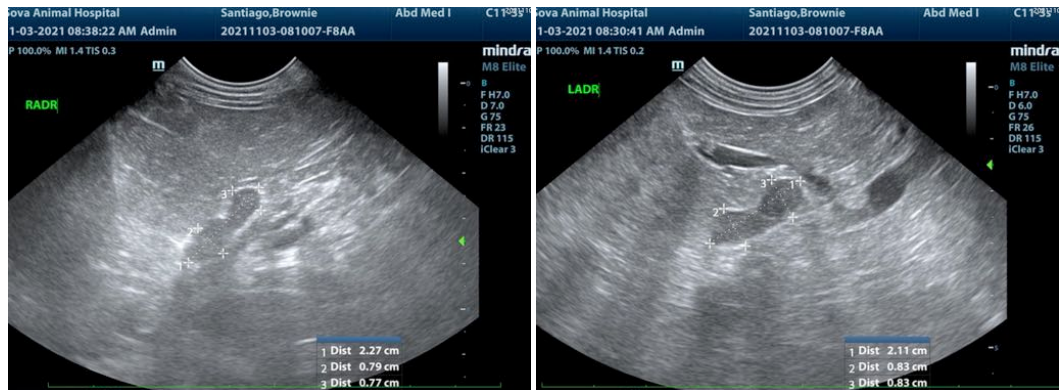
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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