

**DATE PRESENTING CLINICAL SIGNS**

4/14/23 Urinating in the house for several weeks. Urinating large amounts.

PATIENT

Benny Moscato

Current Medications: Gabapentin 100mg BID, Galliprant 20mg SID.

Lab Results: LDDST Negative. UA- hematuria, USG 1.009 consistently. ALKP 542. Slight elevations cholesterol, Triglycerides, Precision PSL.

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

West Highland Terrier

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System****SEX**

Neutered Male

The **urinary bladder** revealed a mineralizing mass, measuring 1.26 cm at the dorsal apical wall. Concurrent bladder calculi were present, measuring up to 0.25 cm, nonobstructive at the time of the sonogram. A grouping of the calculi and sand measured 0.74 cm.

AGE

5/3/08

A **sublumbar lymph node** was enlarged, rounded and hypoechoic, measuring 2.08 cm x 1.17 cm, strongly suggestive for metastatic disease.

WEIGHT

28 Pounds

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 right kidney measured 4.83 cm. The left kidney measured 4.97 cm.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Adrenal Glands**HOSPITAL NAME**

Honeygo AH

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 1.77 cm x 0.61 cm at the caudal pole and 0.57 cm at the cranial pole.

REFERRING VET

Dr. Mullenex

The **left adrenal gland** was enlarged, irregular and nodular, measuring 3.01 cm x 1.2 cm at the caudal pole and 1.23 cm at the cranial pole.

INVOICE

21991

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** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically

significant at this time. Vascular tracts were of normal volume and no evidence of congestion was noted. The hepatic lymph nodes were unremarkable. Hyperechoic lipogranulomas were noted.

The **gallbladder** was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be moderately excessive. No adjunctive inflammation was noted.

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

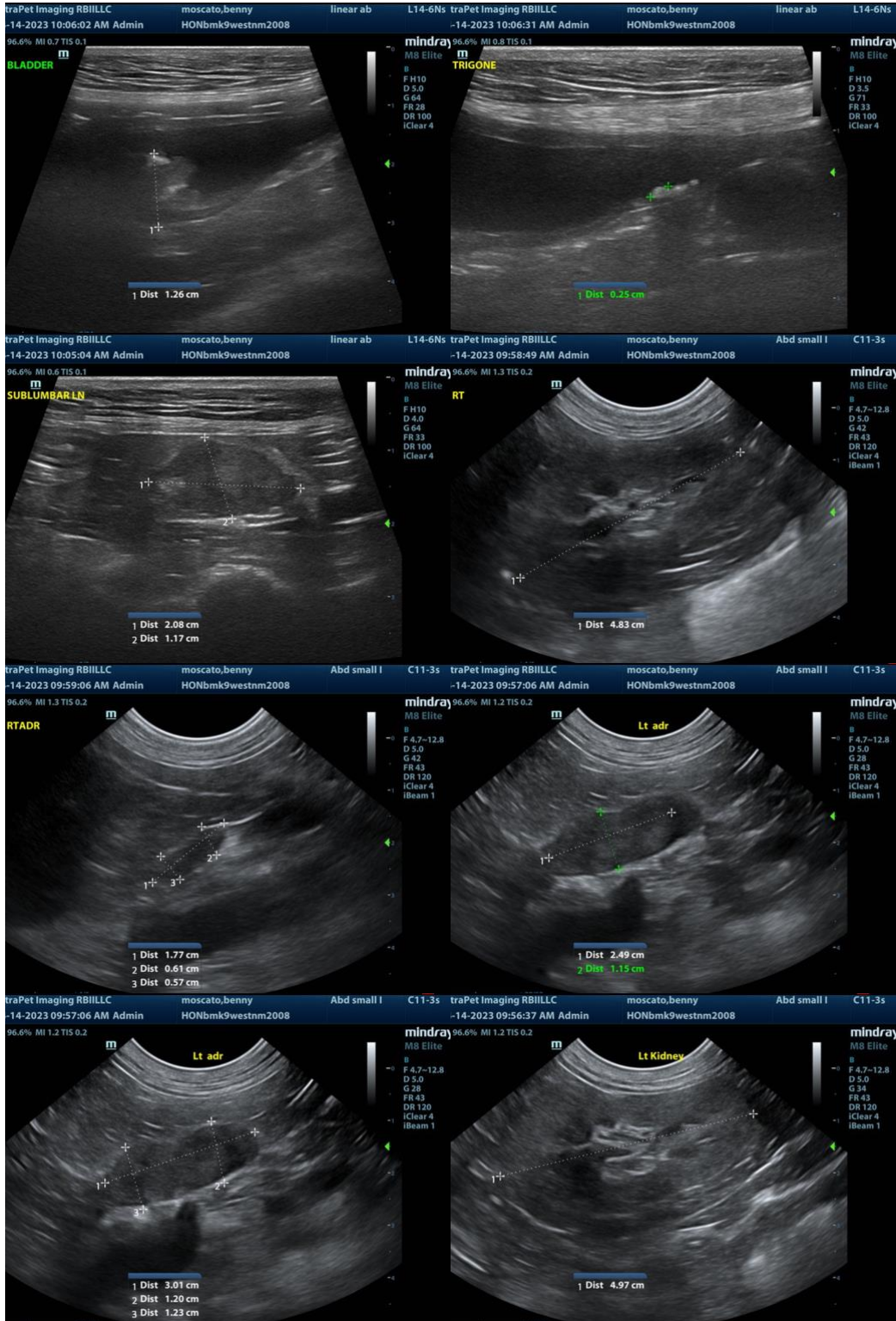
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

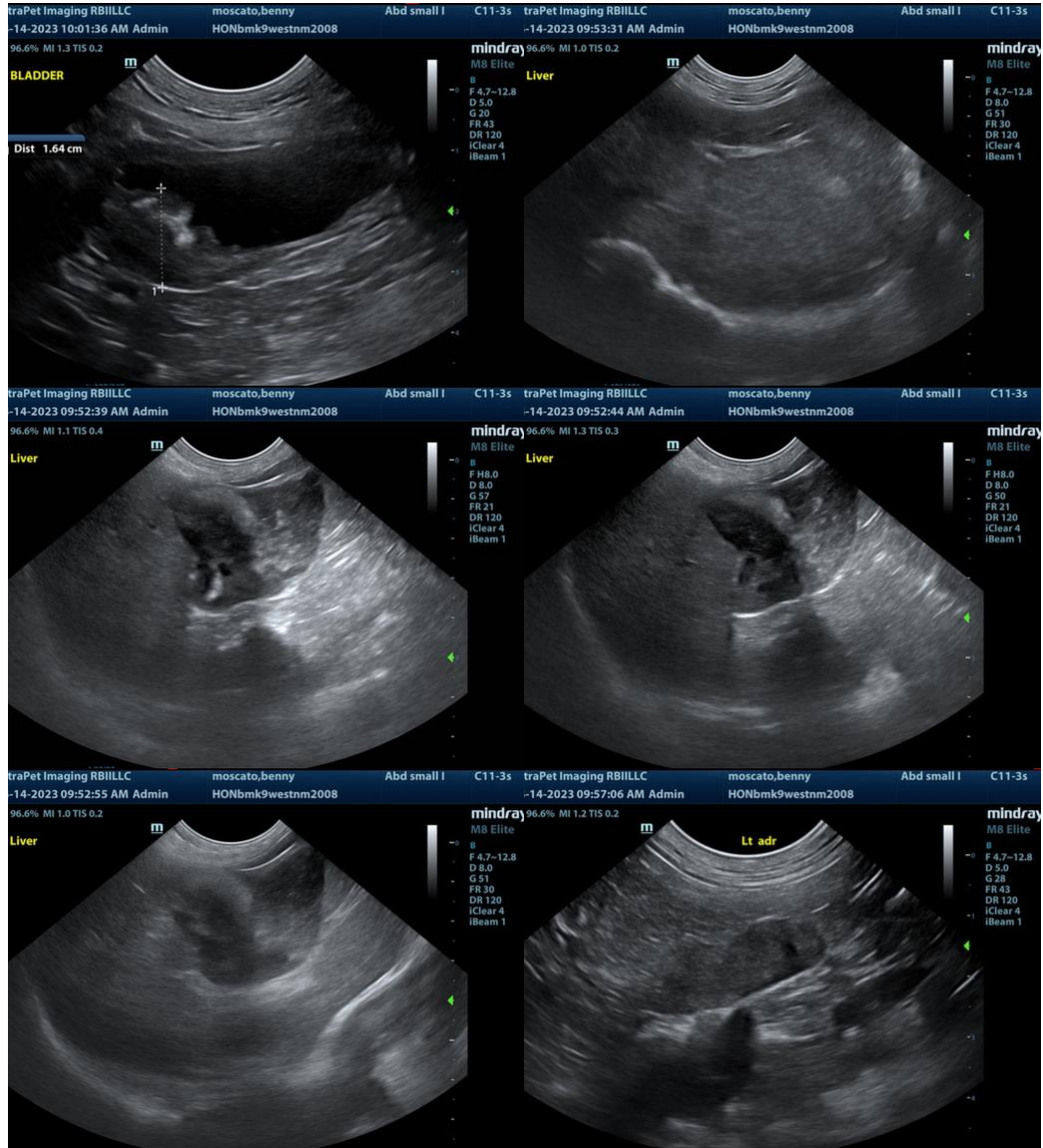
ULTRASONOGRAPHIC FINDINGS

- Apical dorsal bladder mass and concurrent bladder calculi (nonobstructive)
- Iliac lymphadenopathy, strongly suggestive for metastatic disease
- Age-related renal changes
- Nodular, irregular left adrenal gland
- Age-related hepatic changes with hyperechoic lipogranulomas
- The gallbladder was overdistended with suspended largely immobile debris, consistent with emerging mucocele

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Ultrasound guided FNA of the iliac lymph node is recommended to assess for metastatic disease, as subjectively the apical dorsal bladder mass could be resected, as well as the bladder calculi removed with normo- and retrograde flushing. Traumatic catheterization of the bladder mass could be considered to confirm suspicion of carcinoma with ultrasound guidance. Ursodiol therapy could be justified. The left adrenal pathology is concerning for possible pheochromocytoma or adenocarcinoma (adenoma and hyperplasia are both possible). Serial blood pressures are recommended. The left adrenal gland does appear resectable. Guarded prognosis given the multiple issues in this patient.





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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