



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Bit Town
SPECIES Canine
BREED Shih Tzu Mix
SEX Spayed Female
AGE 10 years
WEIGHT 7.1 kg

History: Poor appetite, shaking, lethargic. Has back pain and intermittent limping RF. Lost 0.7kg in just over a week. Long term proteinuria, recently worsened as well as azotemic. Has been on telmisartan and fortekor long term to manage proteinuria, recently doubled telmisartan due to worsening proteinuria, and 1 week later checked BP and severe hypertension present. Suspect pheochromocytoma. March 26/2021 had an ultrasound and R adrenal mass found.
Abnormal PE/Chem/CBC/UA Results: Today checked Tbili due to enlarged GB=0.4=normal Nov 24th renal panel: UPC 6.45 (was 1.29 in April), SDMA 26, Creat 2.2, BUN 54. Doubled telmisartan dose at this time to 20mg SID. Is still on fortekor 2.5mg SID. Full CBC/Chem done March 25th-AIkP 1759, SDMA 25, remainder of labwork normal Dec 6th: Hypertension, appeared very relaxed during readings: 207/128 mean 151 267/203 mean 231 172/114 mean 138

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

The **kidneys** revealed moderate degenerative changes with corticomedullary and pelvic calculi. The kidneys had pyelectasia and microcystic cortical changes.

Adrenal Glands

The right **adrenal gland** was enlarged, nodular and irregular with capsular expansion without capsular escape. The left adrenal gland was enlarged, irregular, heterogenous and nodular.

Spleen

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

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

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

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Dr. Biederbeck

HOSPITAL NAME

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PATIENT demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Bit Town

SPECIES *Pancreas*

Canine The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

BREED

Shih Tzu Mix

SEX **ULTRASONOGRAPHIC FINDINGS**

Spayed Female Bilateral adrenal hypertrophy with nodular changes. Hyperplasia versus adenoma. There is a minor potential pheochromocytoma or adenocarcinoma.

AGE Moderate, degenerative renal changes.

10 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT 72 hour IV fluid protocol and urine culture and sensitivity. Given the hypertension this may be owing to emerging renal failure or adrenal tumor. Anti-hypertensives are warranted. There was no obvious evidence of neoplasia unless either of the lymph nodes are emerging carcinoma or pheochromocytoma which is unlikely.

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For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://sonopath.com). You can select the internal medicine drop down at <http://spa.sonopath.com/>.

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One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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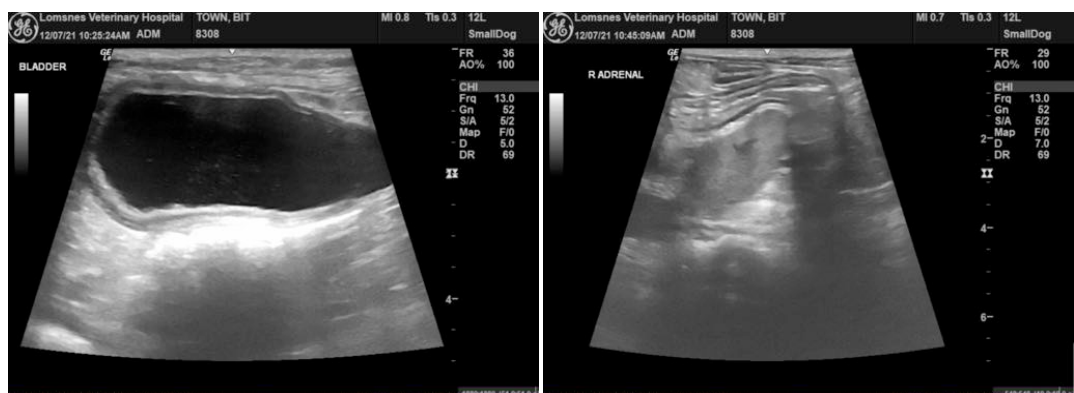
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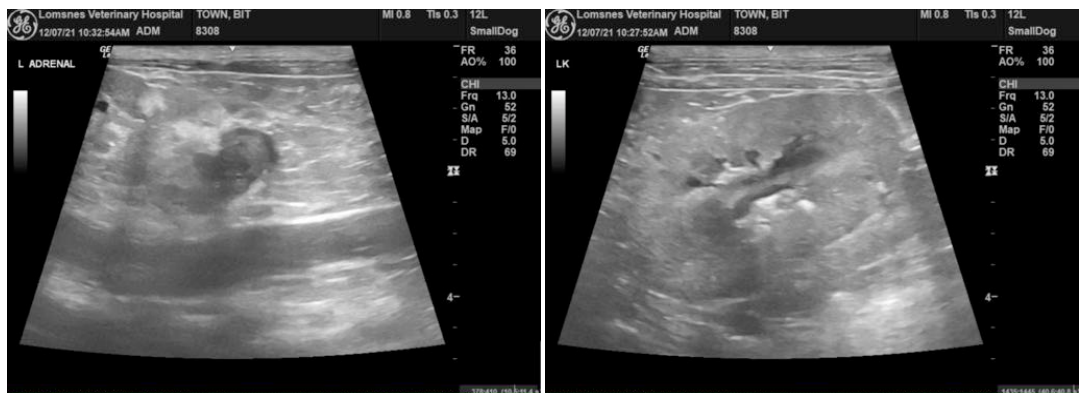
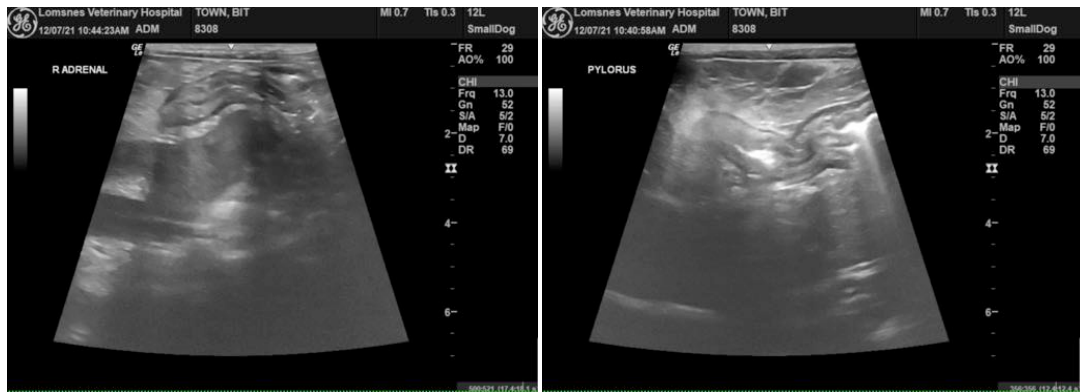
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com



PATIENT info@SonoPath.com

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