



PATIENT

Tibbie Scarano

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

11 Years 5 Months

WEIGHT

16.8 Pounds

INTERPRETED BY

Eric Lindquist, DMV,
DABVP (CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Black River VH

REFERRING VET

Dr. Hewitt

INVOICE

36410

DATE

3/27/26

PRESENTING CLINICAL SIGNS

- BCS 5/9
- Hx bladder stones. Prev. u/s report attached from 1/28/2025.
- Diabetic, elevated LE's and other lab abnormalities
- Mild weight loss, inconsistent appetite (possibly behavioral)
- Current Medications: Vetsulin
- Abnormal PE/Chem/CBC/UA Results: RBC-5.28; Hct-37.0; PLT-547; Gluc-266; BUN-37; Na-137; CL-101; ALT-1,023; AST-105; ALP-4,569; GGT-39; Chol- 1,288; Free catch UA: Protein 500; Gluc 300; PH 6.5; USG 1.038, pale yellow, SI cloudy

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed persistent calculi, measuring 1.0 cm and 0.9 cm. Anechoic urine was noted. The apical ventral bladder wall was mildly thickened with areas of mineralization. I'm concerned for potential emerging carcinoma in this area, as opposed to cystitis. The region in question measured 2.5 cm x 0.8 cm. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction. The residual prostate measured 0.85 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some moderate 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. The left kidney measured 4.5 cm. The right kidney measured 5.09 cm. Pinpoint mineralizations were noted.

Adrenal Glands

Both **adrenal glands** were 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 left adrenal gland measured 0.78 cm at the caudal pole and 0.6 cm at the cranial pole. The right adrenal gland measured 0.62 cm at the cranial pole and 0.58 cm at the caudal pole.

Spleen

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes were noted. This is a mild change. Hypochoic nodules were noted, measuring up to 0.46 cm. Subjectively, the splenic changes appear benign.

Liver



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The **liver** revealed macronodular changes similar to the prior sonogram, and mild uniform enlargement. The largest nodule measured 2.6 cm. The **gallbladder** revealed some striating bile and mild overdistention consistent with emerging gallbladder mucocele. The gallbladder calculi moved into the distal cystic duct junction to the common bile duct. They appeared to be lodged and causing a partial obstruction. A grouping measured 1.95 cm.

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.

Other

Rapid view of the **heart** revealed no evident pathology.

ULTRASONOGRAPHIC FINDINGS

- Cystic duct calculi with posthepatic obstructive pattern
- Nodular hyperplasia liver pattern
- Ventral apical bladder wall thickening with calculi
- Age-related renal changes with pinpoint mineralizations
- Age-related abdominal changes otherwise

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BRAF testing is indicated. I strongly recommend surgical intervention both in the urinary bladder and the gallbladder/cystic duct. Partial cystectomy of the apical ventral bladder wall with cystotomy, stone analysis, and culture, as well as cholecystotomy or cholecystectomy (would be a judgement call at surgery) with removal of the cystic duct calculi and common bile duct lavage. Even though the bilirubin values are not reported to be elevated, I am concerned for a low-grade clinical issue regarding the biliary calculi. Given the alkaline phosphatase and ALT elevations these are likely being exacerbated by the cholelithiasis. Inspection of the spleen at surgery would be appropriate.



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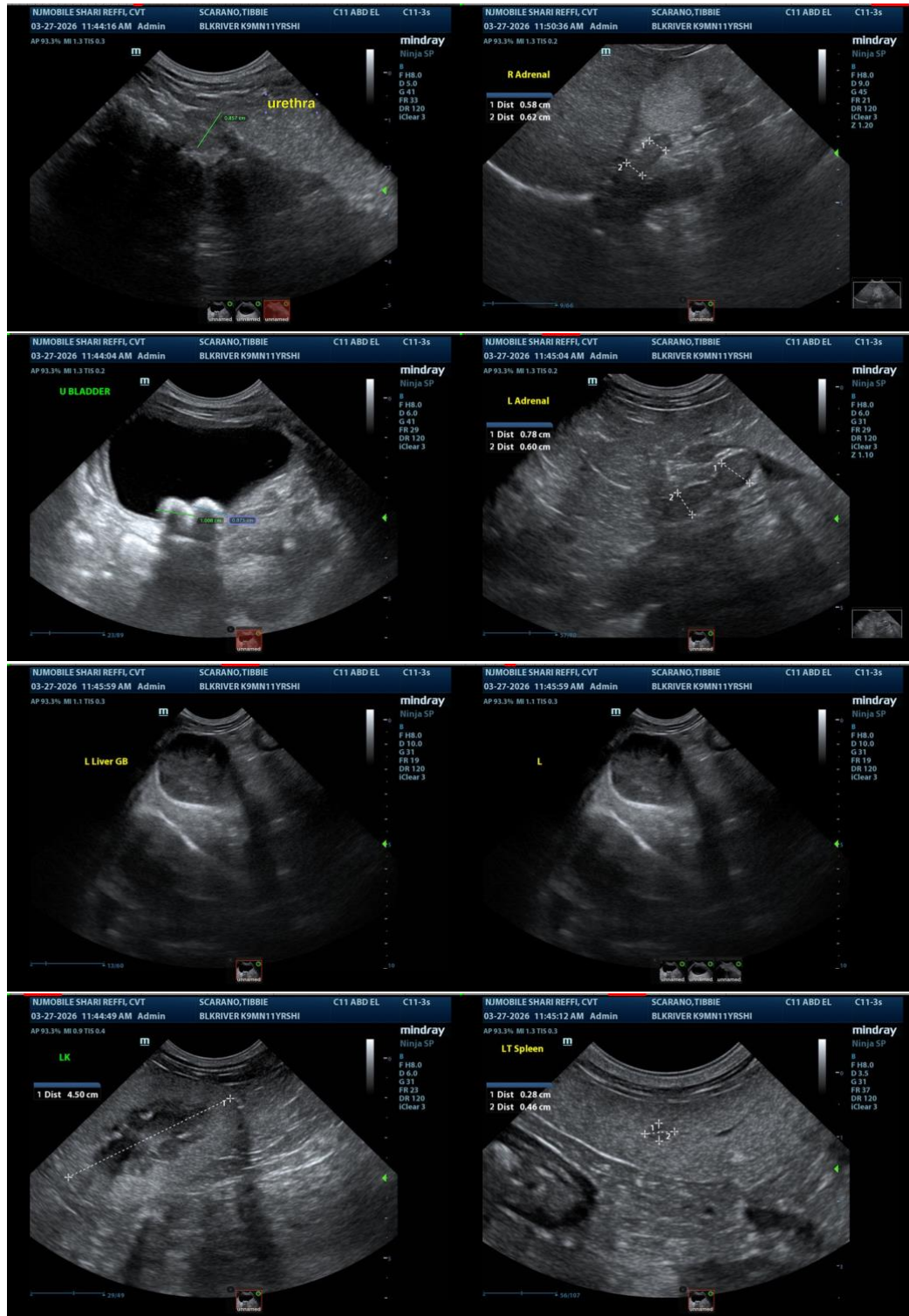
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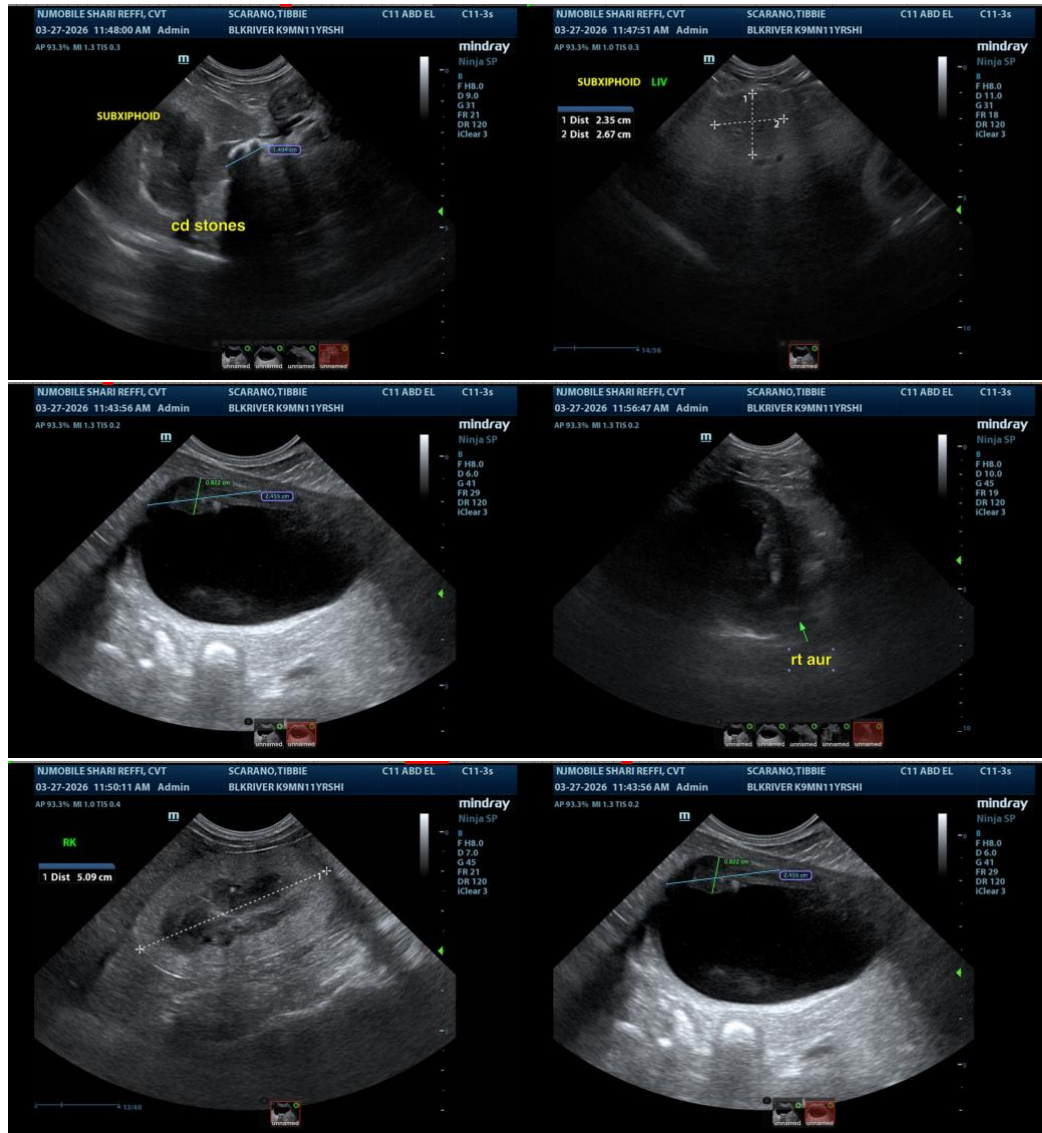
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,
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