



**PATIENT PRESENTING CLINICAL SIGNS**

**Bear Hete** History: hematuria; previously diagnosed with PSS. On lactulose.  
Abnormal PE/Chem/CBC/UA Results: UA: RBCs TNTC, WBC 3-5, USPG 1.036

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

Chihuahua

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. Bladder sand and calculi were present. The urinary catheter was in proper placement. Dependent and suspended debris was noted in the urinary bladder. Bladder calculus measured 0.3 cm as well as a smaller amount of sand. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

**SEX**

Intact Male

The prostate was uniform and measured 1.0 cm.

**AGE**

1 Year

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Corticomedullary calculi were noted in both kidneys and were non-obstructive. The right kidney measured 3.7 cm. The left kidney measured 3.38 cm.

**WEIGHT**

2.9 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**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 1.05 x 0.2 cm at the cranial pole and 0.27 cm at the caudal pole. The right adrenal gland measured 1.42 x 0.84 cm at the cranial pole and 0.18 cm at the caudal pole.

**IMAGING PERFORMED BY**

Diane McFadden

**Spleen**

**HOSPITAL NAME**

Newton VH

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.

**REFERRING VET**

N/A

**INVOICE**

99615

**Liver**

The **liver** was subnormal in size. The hepatic width in short axis measured 1.3 cm. The portal vein to vena cava ratio was subnormal. The portal vein 0.3 cm, the vena measured 0.47 cm and aorta measured 0.45 cm. An extrahepatic abnormal vessel was present, yet further definition is necessary. The gallbladder and common bile duct were unremarkable.

**DATE**

2/21/22



**PATIENT**

Bear Hete

**Gastrointestinal**

**SPECIES**

Canine

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.

**BREED**

Chihuahua

**Pancreas**

**SEX**

Intact Male

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.

**AGE**

1 Year

**ULTRASONOGRAPHIC FINDINGS**

- Bladder calculus.
- Suspect extrahepatic portosystemic shunt.
- Concurrent microhepatica.

**WEIGHT**

2.9 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend referring to the prior sonograms as to type of extrahepatic shunt; however, this is suggestive for splenoazygos shunt given the normal vena cava to aortic ratio. CT is recommended of further definition. The hematuria is likely owing to bladder calculus +/- passage of calculi from the kidneys to the bladder. Treatment for UTI is warranted in the meantime. Neutering and eventual shunt correction is indicated as well as cystotomy. Reassessment of bile acid profile is also indicated. Full sedation would likely be necessary to further define the exact portosystemic shunting from a sonographic perspective.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**ABOUT SONOPATH CT SERVICES:**

**SonoPath CT Services** are offered at the [Blairstown Animal Hospital](http://Blairstown Animal Hospital). Blairstown, New Jersey. More information can be found at

**IMAGING PERFORMED BY**

Diane McFadden

<https://sonopath.com/resources/sonopaths-teleconsultation-services-and-sdep-certification/sonopath-ct-services>

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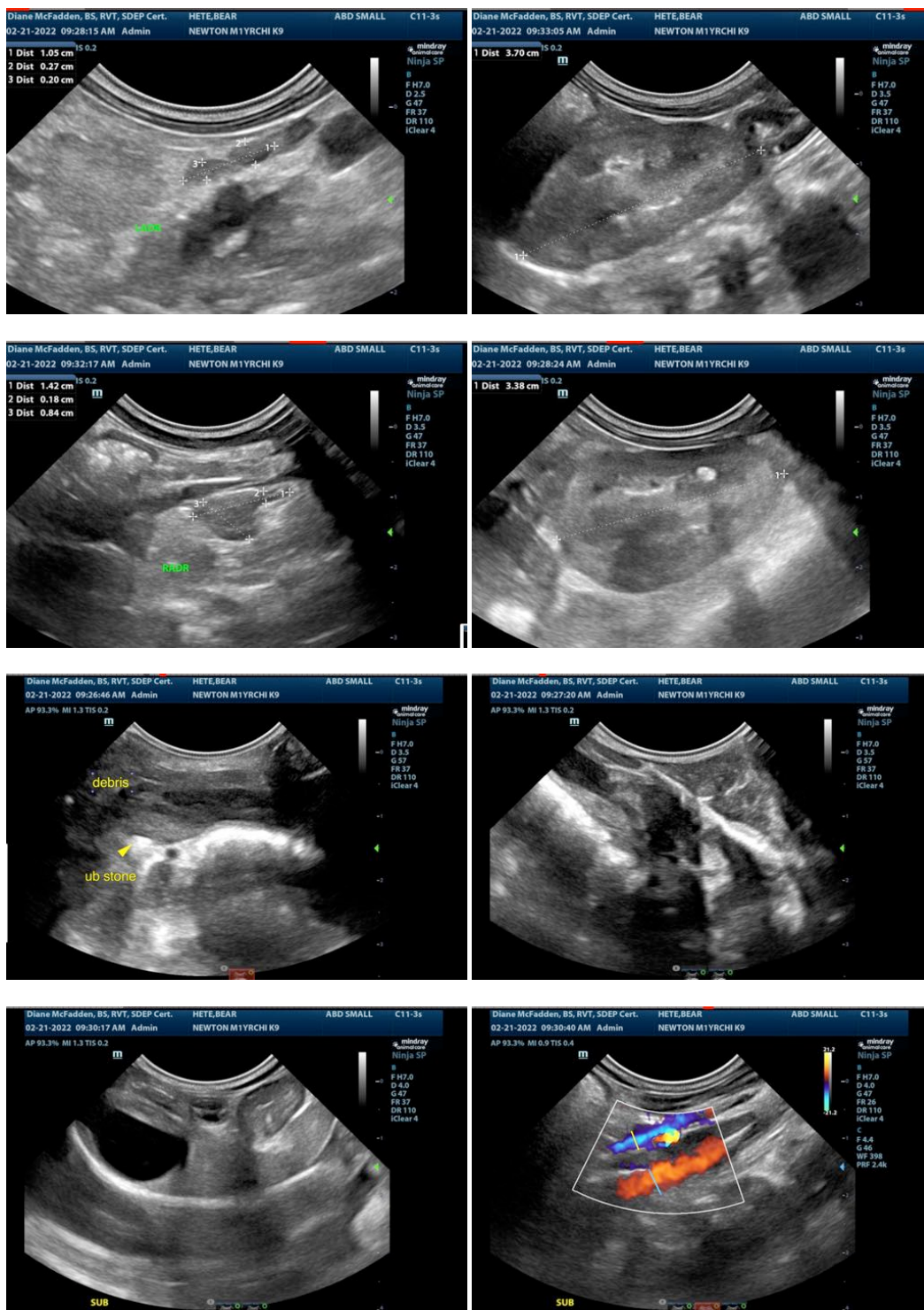
N/A

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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.



**PATIENT**

Bear Hete

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

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Canine

**BREED**

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**AGE**

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