



**PATIENT PRESENTING CLINICAL SIGNS**

Kelly Dilks evaluation of kidneys for possible neoplasia or infection due to recent azotemia, anorexia

**SPECIES** Abnormal PE/Chem/CBC/UA Results: PCV 37, SDMA, urea creat all moderately elevated, phos elevated, Ca++ slightly elevated.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Min Schnauzer

The **urinary bladder** was largely normal with slight micropolyploid changes noted at the bladder apex. The urethra presented normal thickness and tone to a depth of 2.0 cm. 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 were noted. Ureteral papillae were normal.

**SEX**

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The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with moderate chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Pyelectasia was noted in the left kidney. Nonobstructive corticomedullary mineralizations were noted in both kidneys. The left kidney measured 4.2 cm length. The right kidney measured 5.04 cm length. Blood flow to the kidneys appeared to be adequate to hyper vascular on Power Doppler assessment.

**AGE**

10 years

**WEIGHT**

22 lbs.

**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 right adrenal gland measured 1.94 cm length x 1.22 cm width in the cranial pole and 0.44 cm width in the caudal pole. The left adrenal gland measured 1.54 cm length x 0.57 cm width at the cranial pole and 0.66 cm width at the caudal pole.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Sixteen Mile VC

**Spleen**

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

**Liver**

**REFERRING VET**

Dr. Honda

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some minor age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was 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 mildly excessive. No adjunctive inflammation was noted.

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**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.

**DATE**

6/16/23



**PATIENT** *Pancreas*

Kelly Dilks 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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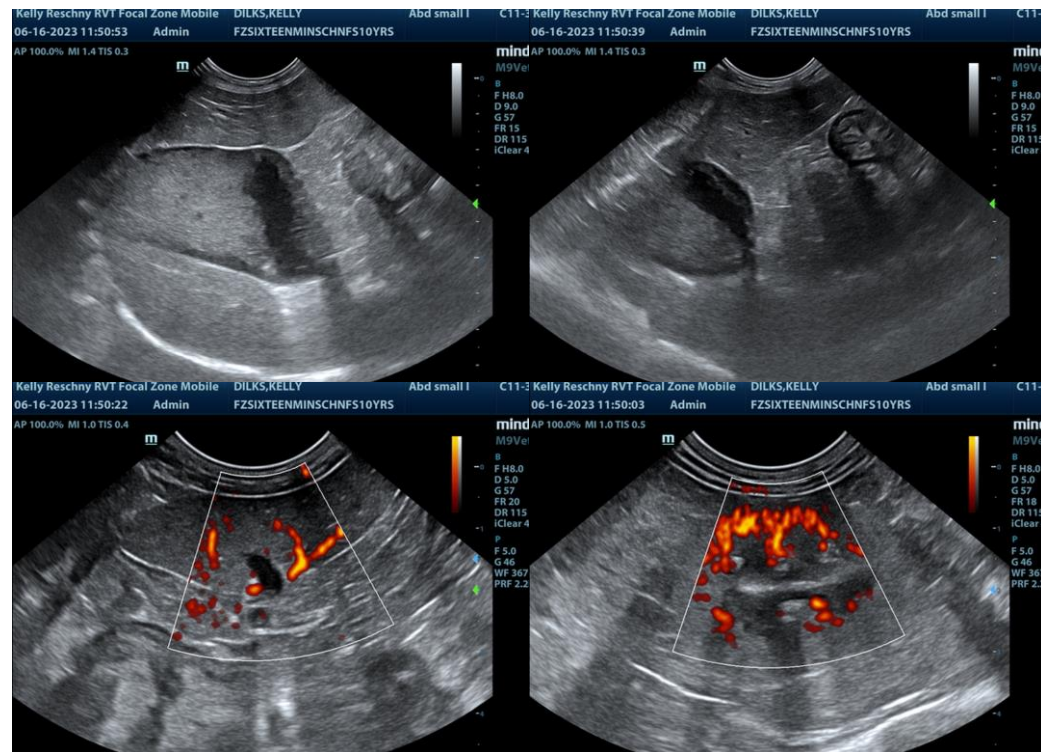
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**ULTRASONOGRAPHIC FINDINGS**

- Acute on chronic renal failure with calculi
- Splenic mineralization - potential relationship to underlying endocrinopathy
- Age-related hepatic changes
- Minor excessive gallbladder sludge

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recent passage of calculi in this patient cannot be ruled out, yet no obstructive disease is noted at this time. 72-hour IV fluid protocol, Leptospirosis titers, urine culture and blood pressure are all indicated with reassessment of clinical status. The kidneys do not appear to be end-stage.





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Kelly Dilks

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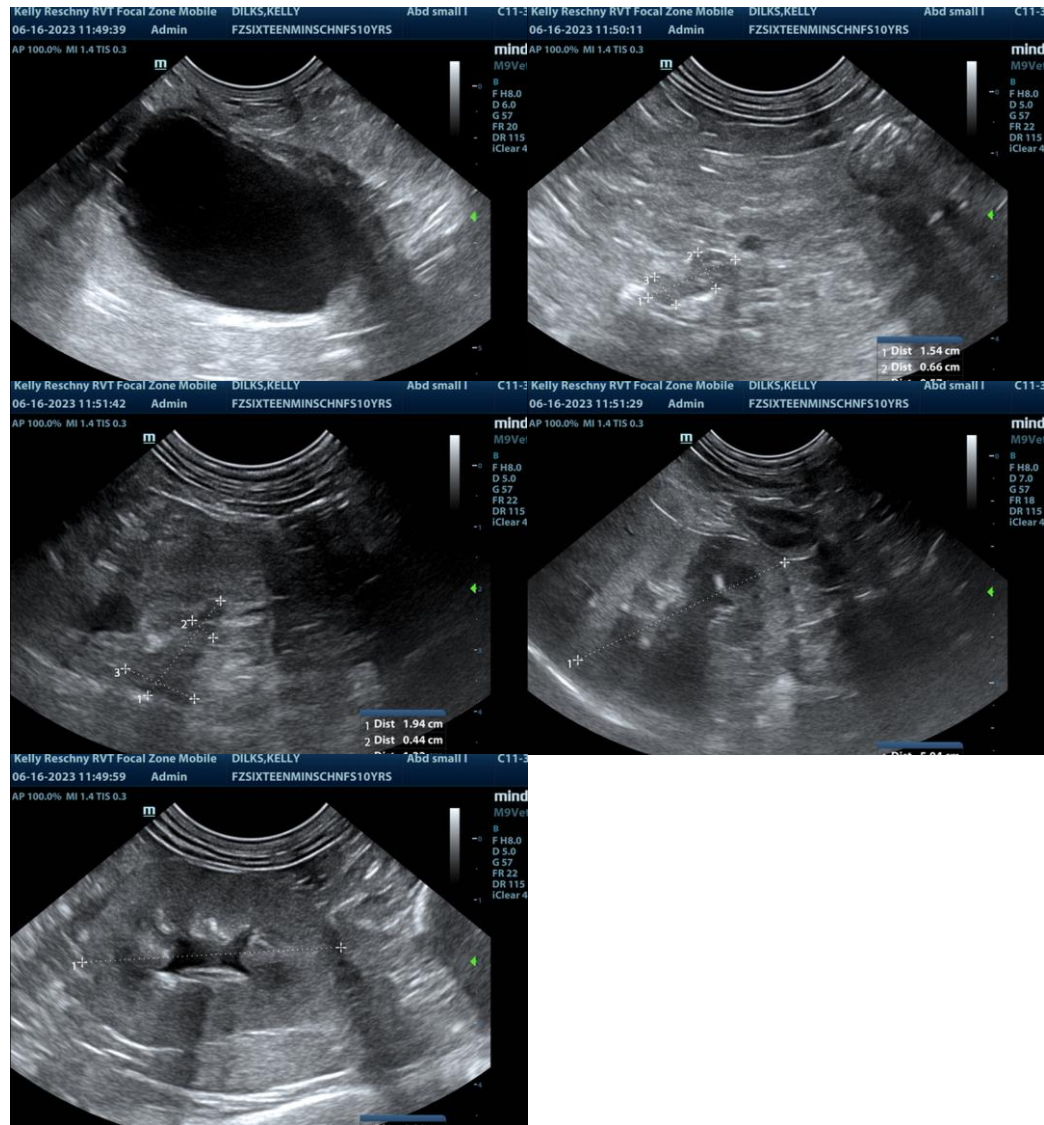
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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