



**PATIENT PRESENTING CLINICAL SIGNS**

Chespi Robles

Presented as a referral for an abdominal ultrasound. PT presented to rDVM with hx of anorexia/vomiting on 7/28/23. Hx /DX pancreatitis / IMHA no treatment now. Chem: Azotemia/hypercalcemia. Hospitalized for stabilization. Rule out hypercalcemia of malignancy vs hypercalcemia due to Chronic Renal Failure.

**SPECIES**

Canine

**BREED**

Mini Schnauzer

Abnormal PE/Chem/CBC/UA Results: BW: CBC: Hemoglobin 13.0 13.1 - 20.5 g/dL, RBC 5.52 5.65 - 8.87 M/ $\mu$ L Rest wnl CHEM: Creatinine 8.4 0.5 - 1.8 mg/dL BUN 106 7 - 27 mg/dL Phosphorus 14.9 2.5 - 6.8 mg/dL Calcium 12.3 7.9 - 12.0 mg/dL ALT 382 10 - 125 U/L ALP 581 23 - 212 U/L Amylase 1,626 500 - 1,500 U/L

**SEX**

Neutered male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**AGE**

11 Years

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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. The residual prostate was uniform at 0.77 cm.

**WEIGHT**

17 Pounds

The **kidneys** revealed thickened cortices with loss of corticomedullary definition. Echogenic cortical remodeling noted, consistent with interstitial nephrosis. Microcystic changes also noted in the renal cortices. The right kidney measured 6.01 cm with pyelectasia noted. The left kidney measured 5.5 cm with slight pyelectasia at 0.27 cm. Mineralization also noted.

**INTERPRETED BY**

Eric Lindquist, DMV

**Adrenal Glands**

DABVP, Cert. IVUSS

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 1.76 cm x 0.50 cm. The left adrenal gland measured 1.91 cm x 0.42 cm.

**IMAGING PERFORMED BY**

Dr. Ferrer

**Spleen**

**HOSPITAL NAME**

Paseos Vet Center

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**

Dr. Marylin Davila

**Liver**

**INVOICE**

44640

**DATE**

8/3/23

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.



**PATIENT**

**Gastrointestinal**

Chespi Robles

Examination of the **gastrointestinal tract** revealed hypertrophied gastric mucosal changes with empty lumen and edematous wall. The small intestine and colon were unremarkable with some hyperperistalsis.

**SPECIES**

Canine

**Pancreas**

**BREED**

Mini Schnauzer

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 subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

**SEX**

Neutered male

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

11 Years

- Chronic interstitial nephrosis renal pattern/degenerative renal disease
- Gastritis
- Age related hepatic changes and excessive gallbladder debris
- Age related pancreatic changes

**WEIGHT**

17 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

Eric Lindquist, DMV

Long-term viability of the kidneys is in question. Leptospirosis titers indicated. Subjectively, the kidneys appear near end stage. Blood pressure measurements, urine culture, 72-hour IV fluid protocol, and GI protectants all indicated. Prognosis is very guarded depending upon response to therapy.

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Ferrer

**HOSPITAL NAME**

Paseos Vet Center

**REFERRING VET**

Dr. Marylin Davila

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**PATIENT**

Chespi Robles

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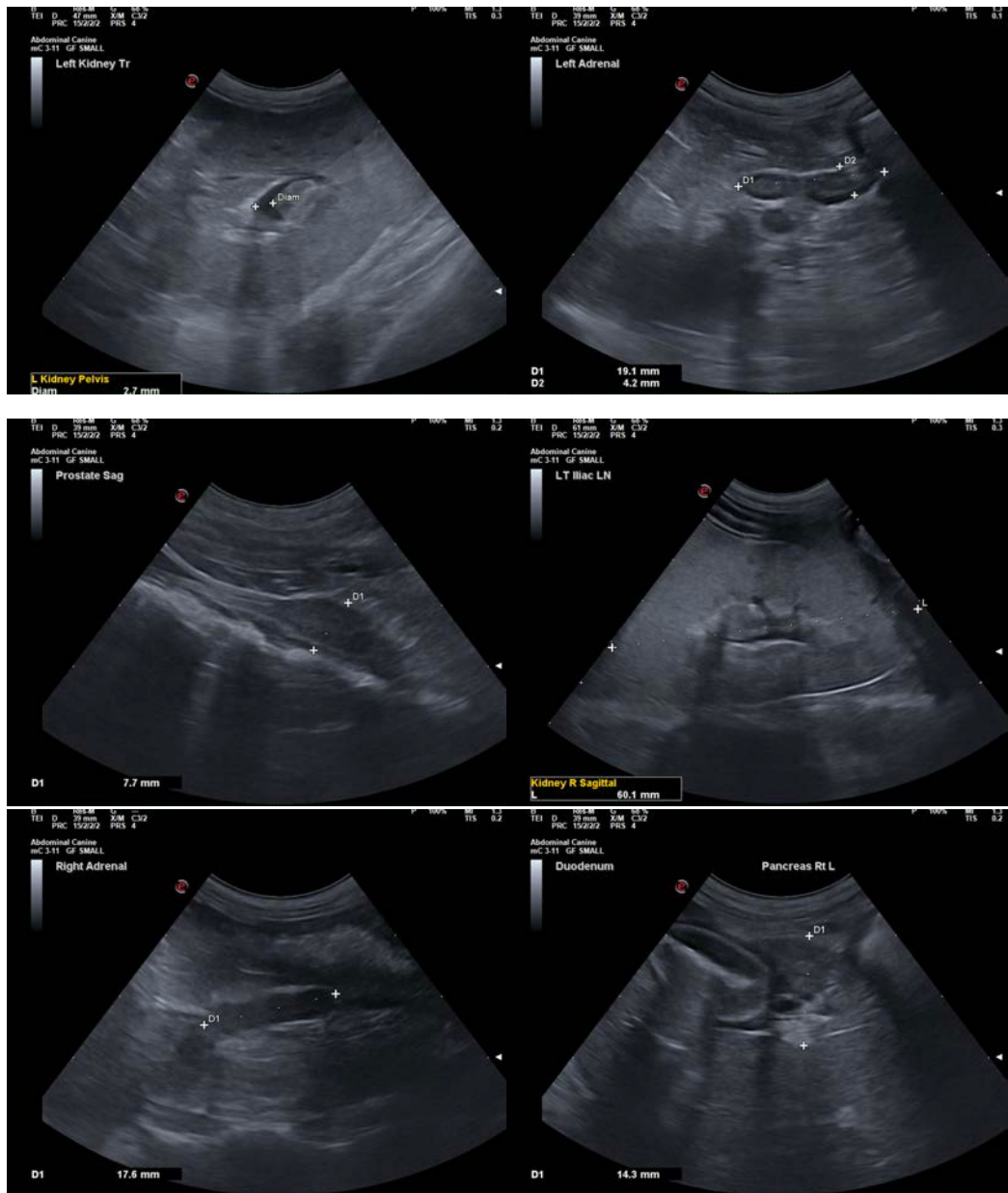
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com**

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