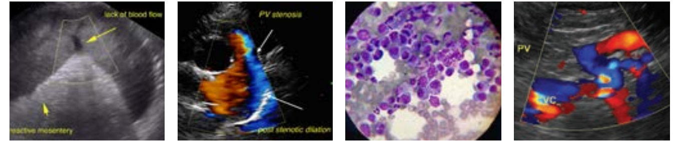
SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Trixie Chamberlin

SPECIES

Canine

BREED

Chihuahua X

SEX

Spayed Female

AGE

13 Years

WEIGHT

5.7 kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Erin Wicks

HOSPITAL NAME

Shores VEC

REFERRING VET

Dr. Nelson

INVOICE

26171

DATE

10/11/21

PRESENTING CLINICAL SIGNS

Presented at our hospital for chronic diarrhea. O states that P finished medications on 10/4 and began having diarrhea again on 10/6, late PM. O states that P is otherwise doing well at home, EDU normally and at normal activity levels. No dietary indiscretion that O is aware of. O is concerned that P is having periodic episodes of abnormal respiratory patterns, random in nature per O. Previous Health Concerns: Pancreatitis, enlarged heart Current Medications: Lasix 10mg q12; Pimobendan ½ tab q12; Pepcid 10mg q24; Enalapril (?)Proviable kit,Gabapentin, Endosorb
Abnormal PE/Chem/CBC/UA Results: Cardiovascular: 5/6 systolic murmur Abdominal: sl tense on palp Diagnostics from 9/5/21: Radiographs: ingesta type material in stomach, enlarged pylorus versus mass, cranial to mid abdomen loss of serosal detail, no obvious mass, OA along spine and stifles Chemistry: GGT 16 H, Amylase 1419 H, Lipase >1000 H CBC: stress leukogram, otherwise unremarkable EPOC: Lactate 4.57 H, BUN 68 H, Creat 2.43 H cPL: abnormal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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 pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

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 chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Occasional cortical cysts noted in both kidneys. The right kidney measured 4.61 cm with pyelectasia. The left kidney measured 4.04 cm.

Adrenal Glands

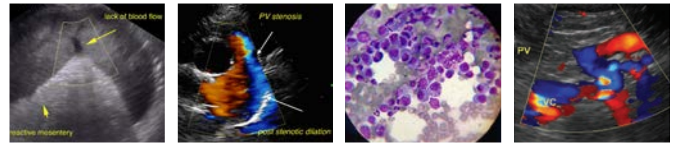
The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins were noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 0.8 cm at maximum width. The left adrenal gland measured 2.14 cm x 0.62 cm at the cranial pole and 0.69 cm at the caudal pole.

Spleen

The **spleen** was folded upon itself cranially and 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.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some 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 presented some dependent debris with essentially normal contour. Minor gallbladder polyps noted. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired



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with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

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

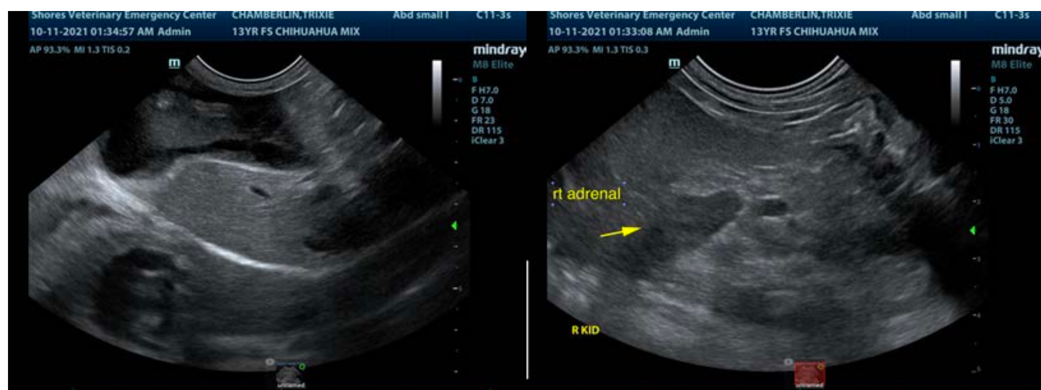
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain 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.

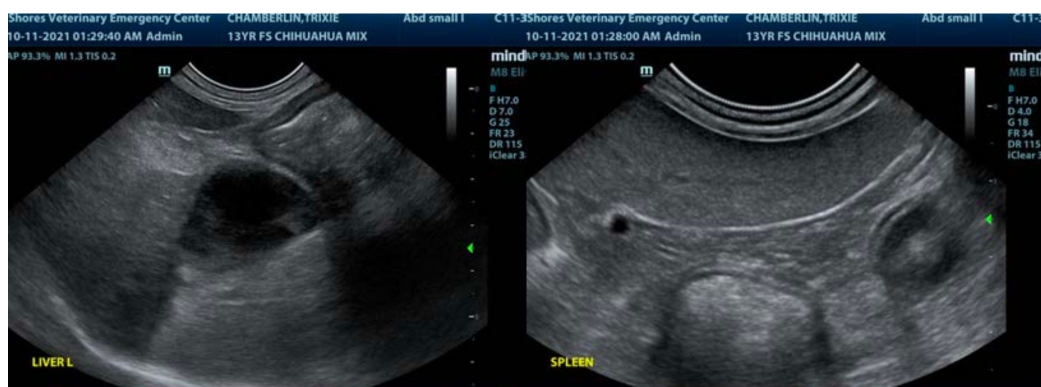
ULTRASONOGRAPHIC FINDINGS

- Interstitial nephritis renal pattern
- Bilateral adrenal hypertrophy
- Possible low-grade pancreatitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If the patient is Cushingoid, then PDH may be the underlying cause. Low-grade pancreatitis is likely given the enzyme elevations. However, I am concerned for long-term viability of the kidneys. Medical management is warranted.





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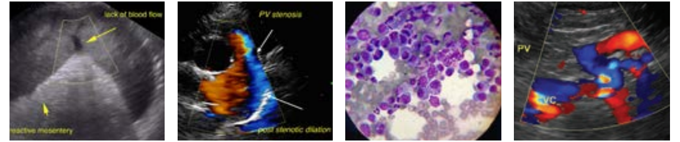

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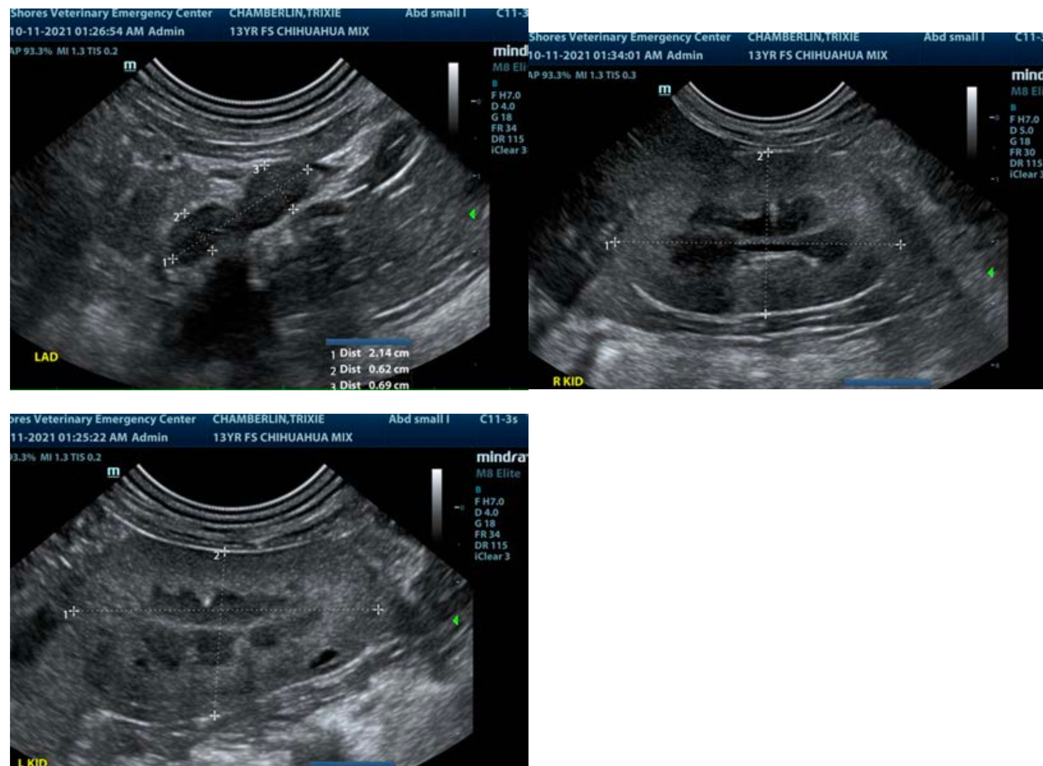

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@SonoPath.com