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Clinical Sonography & Telecytology
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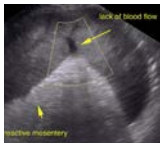
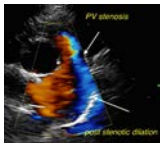
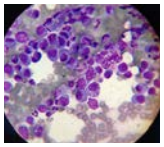
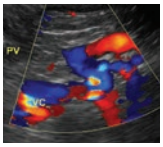

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Maximus Werkheiser

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
14 Years

WEIGHT
12 Pounds

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Shari Reffi, CVT

HOSPITAL NAME
Smithfield AH

REFERRING VET
Dr. Boe

INVOICE
44562

DATE
8/1/23

PRESENTING CLINICAL SIGNS

Losing weight, inappetence. Mineralization in the hepatobiliary system. LK possibly small.

Abnormal PE/Chem/CBC/UA Results: WBC 23.5; NEU 16.6; MONO 0.75; EOS 2.9; BASO 0.29; Ca 12.5

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** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some 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 his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 3.86 cm. The right kidney measured 4.24 cm.

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 0.49 cm. The right adrenal gland measured 0.50 cm.

Spleen

The **spleen** presented a hyperechoic expansive nodule measuring 0.57 cm. The remainder of the spleen was unremarkable.

Liver

The **liver** was riddled with multiple lobar biliary calculi. Increased portal markings noted throughout the liver. The gallbladder was minimally repleted with a minor amount of debris present. The common bile duct revealed a large calculus at the level of the duodenal papilla measuring 0.91 cm. The common bile duct was dilated up to 0.55 cm.

Gastrointestinal

The **gastrointestinal tract** revealed minor variable thickening and echogenic submucosal changes most consistent with low grade end result of chronic GI disease such as IBD and may be related to malassimilation of nutrients if any weight loss is present. No obvious neoplastic patterns were noted and luminal content as unremarkable.

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.

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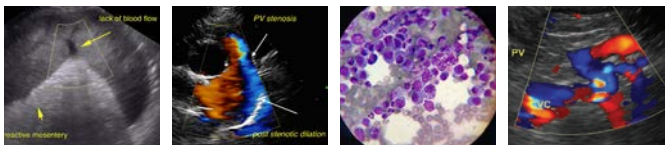

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Free Abdomen

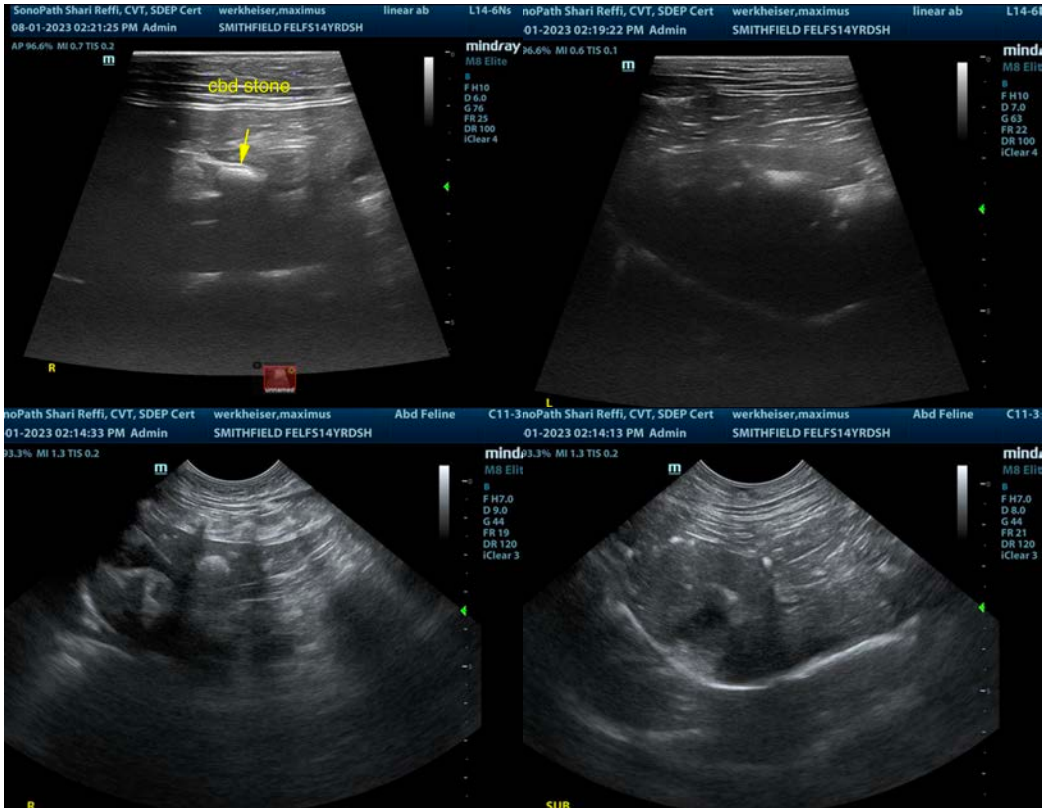
Reactive mesenteric lymph nodes noted, example measured 1.0 cm x 0.38 cm.

ULTRASONOGRAPHIC FINDINGS

- Diffuse lobar biliary calculi and common bile duct calculus, partially obstructive
- Minor intestinal thickening with reactive lymph nodes
- Splenic nodule – suggestive for lipid nodule.
- Age related renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Even though bilirubin elevations are not currently an issue, this may occur in the near future. Ursodiol therapy could be considered palliatively in an attempt to resolve the biliary calculi. However, this is palliative at best. Surgical option to lavage the common bile duct and remove the calculi as well as obtain liver biopsy would be appropriate. Bile acid profile would be appropriate. However, this is difficult to justify without bilirubin and ALP elevations, yet they should be monitored carefully. No overt evidence of neoplasia. Weight loss secondary to inappetence may be the primary issue in this patient. However, other causes of weight loss such as neoplasia elsewhere in the body as well as malassimilation are potentials.



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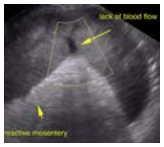
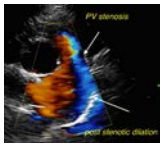
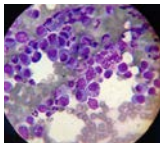
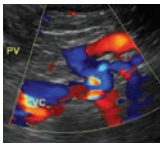

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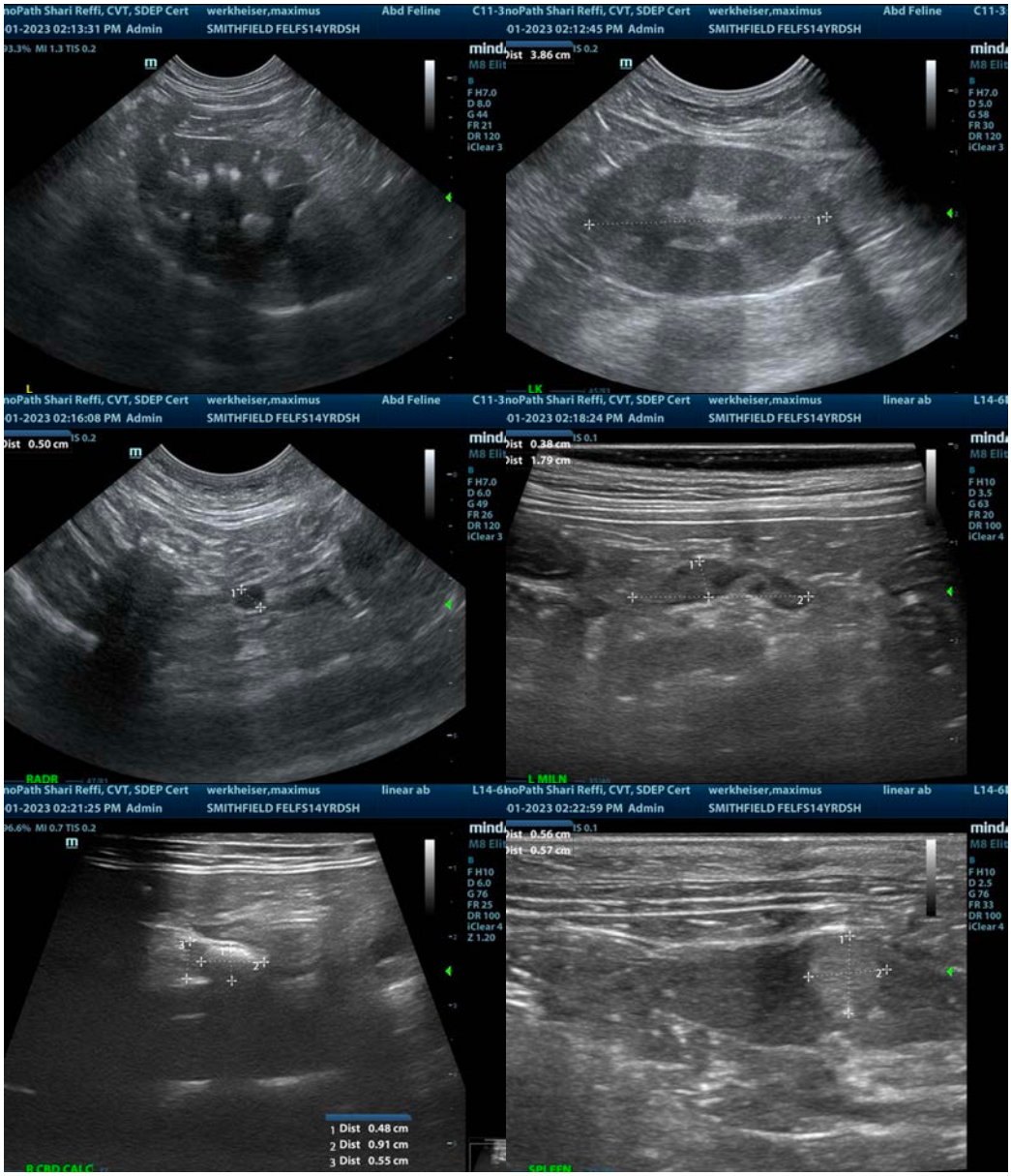

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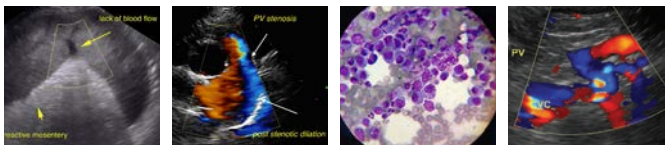

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com