



**PATIENT**

Zeus Klotz

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

16yr

**WEIGHT**

9.8lb

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Rodriguez

**HOSPITAL NAME**

Foxfield Veterinary  
Services

**REFERRING VET**

Rodriguez

**INVOICE**

13222ag

**DATE**

03/20/2023

**PRESENTING CLINICAL SIGNS**

Gagging and drooling. Possible oral mass. Hyporexia

Abnormal PE/Chem/CBC/UA Results: Pending

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with minor non-dependent particulate sediment. The sediment may indicate cellular debris / protein, crystalline debris, lipid, or mucus. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 4.0 cm in length. The right kidney measured 4.2 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The bilateral adrenal glands were normal in size and contour. Pinpoint areas of mineralization were present without capsular distortion or overt tumors. This is an age-related finding and not pathological. The left adrenal gland measured 0.53 width and the right adrenal gland measured 0.51 width.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted. The spleen measured 1.0 cm in width at the level of the hilus.

**Liver/Gallbladder**

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. A non-homogenous echogenic to focally cystic nodule was present in the right lateral caudate liver lobe measuring 2.7 cm in diameter. Focal small non-disruptive concurrent cysts containing anechoic fluid were present. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content and very minor echogenic debris. The proximal common bile duct was mildly dilated and tortuous without overt post hepatic obstruction. The common bile duct measured 0.2 cm diameter.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained minor retained anechoic pyloric fluid with no signs of ileus, obstruction or foreign material.



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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The duodenum wall measured 0.24 cm width. The jejunum wall measured 0.23 cm width.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

**Pancreas**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

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**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

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MN

**ULTRASONOGRAPHIC FINDINGS**

- Overtly normal GI tract with minor retained anechoic pyloric fluid.
- Heterogenous/remodeled pancreas.
- Hepatic parenchymal remodeling with non-specific likely benign nodules/small cysts-likely consistent with benign cystic biliary adenomas.

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**Secondary findings**

- Bilateral chronic renal changes.
- Mild urinary bladder sediment.
- Pinpoint adrenal mineralization-age related variant in a cat.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, a largely geriatric abdomen with no overt evidence of significant abdominal visceral pathology as a definitive cause of the patient's clinical signs. The possibility of emerging neoplastic hepatic intraparenchymal nodule cannot be excluded but is thought less likely.

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Some degree of possible metabolic/functional gastric stasis or low- grade to chronic pancreatitis which may present sonographically normal could be considered especially if evidence of cranial abdominal/subxiphoid discomfort on palpation.

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Correlation with a spec fPL is warranted. The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended. Three view chest radiographs are recommended if not done to assess for occult thoracic/esophageal pathology.

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As needed GI support and gastroprotectants would be reasonable.

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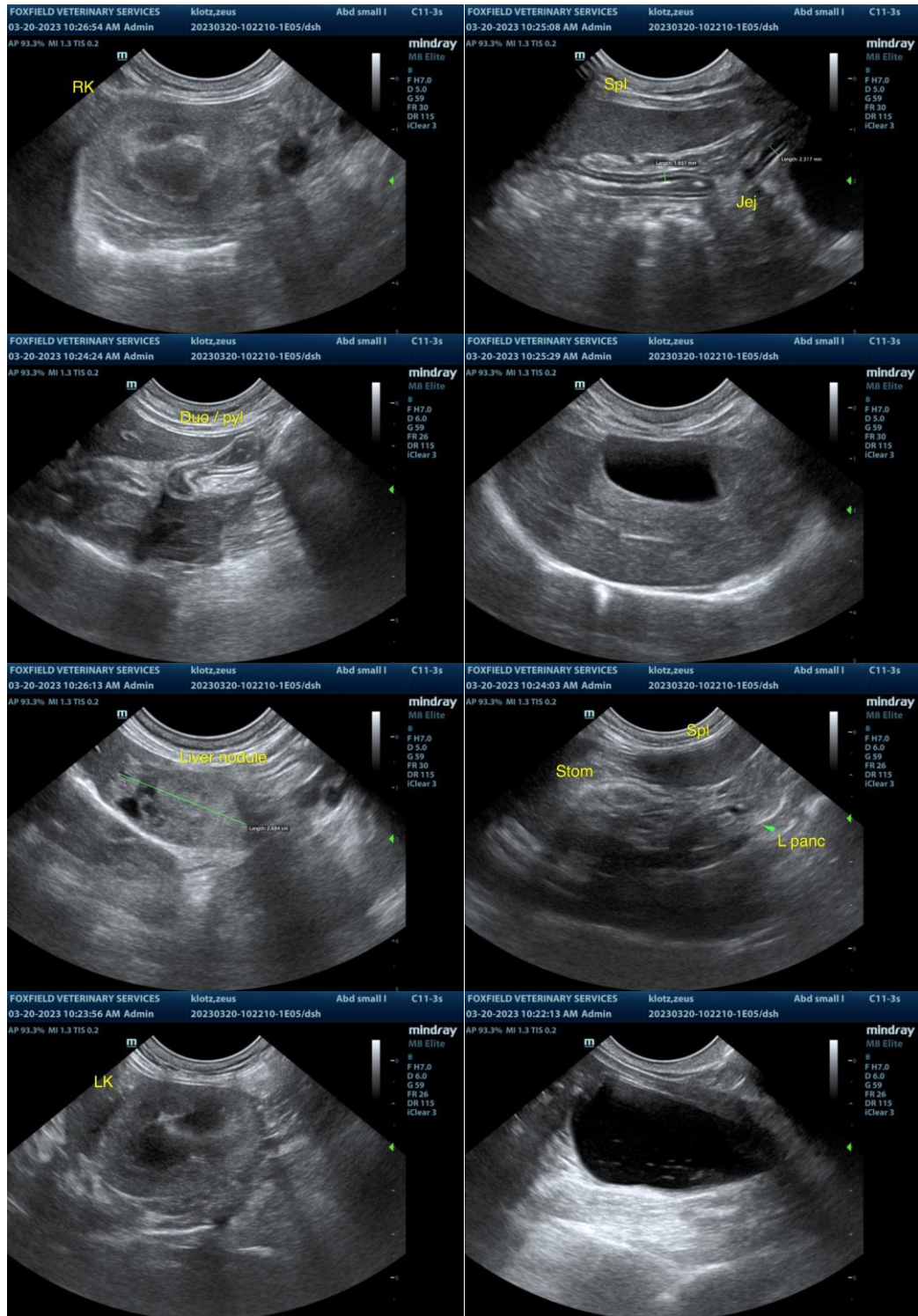
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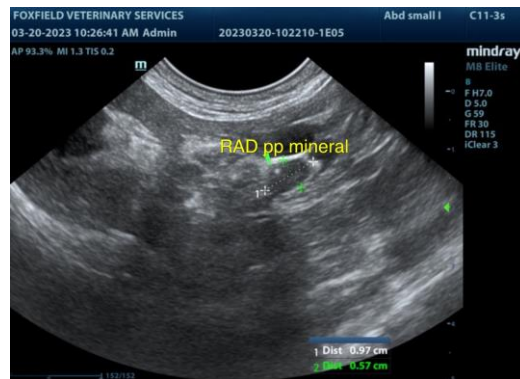
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)

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