



PATIENT

Poot Austria

SPECIES

Feline

BREED

Manx

SEX

MN

AGE

5yr

WEIGHT

3.4kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Anna Wepprich

HOSPITAL NAME

Wilvet Salem

REFERRING VET

Anna Wepprich

INVOICE

14458ag

DATE

07/31/2023

PRESENTING CLINICAL SIGNS

History of diabetes mellitus for 6 months, previously treated for hepatic lipidosis and DKA but has been doing well for 6 weeks, good appetite. Stopped eating 7/26, today very lethargic and dehydrated. Owners have not noted vomiting but they have 9 cats. Owners report diarrhea.

Abnormal PE/Chem/CBC/UA Results: Severe dehydration, firm stool in colon, lethargic Labs 7/30: CBC slight neutrophilia, ALT 235, K 2.9, Glu 317 VBG today: K 2.3, Cl 108, Na 133, Glu 544, pH 7 Radiographs - distended stomach, possible bunching of intestines, constipated UA pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was mildly distended with normal tone and normal bladder wall. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with minor non-dependent particulate sediment. 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. Mild bilateral pyelectasia was present. The left kidney measured 4.3 cm in length. The right kidney measured 4.4 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The bilateral adrenal glands were overtly normal in size, position and shape. The left adrenal gland measured 0.55 cm width. The right adrenal gland measured 0.43 cm 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.

Liver/Gallbladder

The liver was enlarged with symmetrical mildly rounded contour and generalized uniform increased parenchymal echogenicity. Mild to moderate coarse echotexture was present. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. No visualized masses/nodules. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild echogenic sediment. Dilation of the cystic duct extending into generalized mild to moderate tortuous dilation of the common bile duct was present. Minor mucus was present in the common bile duct with no evidence of calculi or overt obstructive duodenal papilla pathology. The common bile duct measured 0.46 cm in diameter.



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Gastrointestinal

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The stomach presented mild to carriable wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The pylorus wall measured 0.40 cm width. Mild gastric distension with moderate retained anechoic fluid, mucus and mild non-shadowing chyme was present.

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The small intestine presented intact segmental to generalized prominent wall layering with mildly prominent muscularis layer. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The duodenum wall measured 0.32 cm width. The jejunum wall measured 0.32 cm width. The ileocolic wall measured 0.30 cm width.

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

SEX

Pancreas

MN

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

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Free Abdomen

No omental masses or overt lymphadenopathy was present.

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Scant perihepatic free fluid was present.

ULTRASONOGRAPHIC FINDINGS

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R. McKenzie Daniel,
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(Canine and Feline)

- Minor urinary bladder sediment.
- Non-specific nephropathy with minor bilateral pyelectasia.
- Hepatopathy with parenchyma hyperechogenicity.
- Gallbladder sediment with generalized tortuous mild to moderate non-obstructive common bile duct dilation.
- Pancreatitis.
- Hypomotile stomach- metabolic/functional ileus, hypomotile gastritis.
- Intact mildly prominent to thickened small bowel walls.
- Scant perihepatic free fluid.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver and gallbladder/CBD presentation is suggestive of inflammatory criteria i.e., cholangiohepatitis given the ALT elevation with diabetic hepatopathy, lipidosis, infiltrative neoplasia all potentials. Assuming normal clotting status, with vitamin K premed and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment.

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Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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A GI panel to include PLI/TLI/Cobalamin/Folate is recommended to correlate with pancreatitis presentation and assessment of intestinal disease as a potential contributing factor to the patient's

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clinical signs.

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Empirically hospitalization with therapy for DKA, suspect cholangiohepatitis and pancreatitis with as needed GI support is recommended.

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This is a suggestive checkoff list when faced with an unregulated diabetic patient:

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- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)
- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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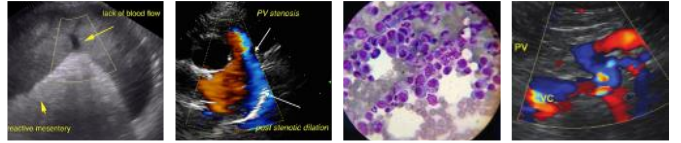
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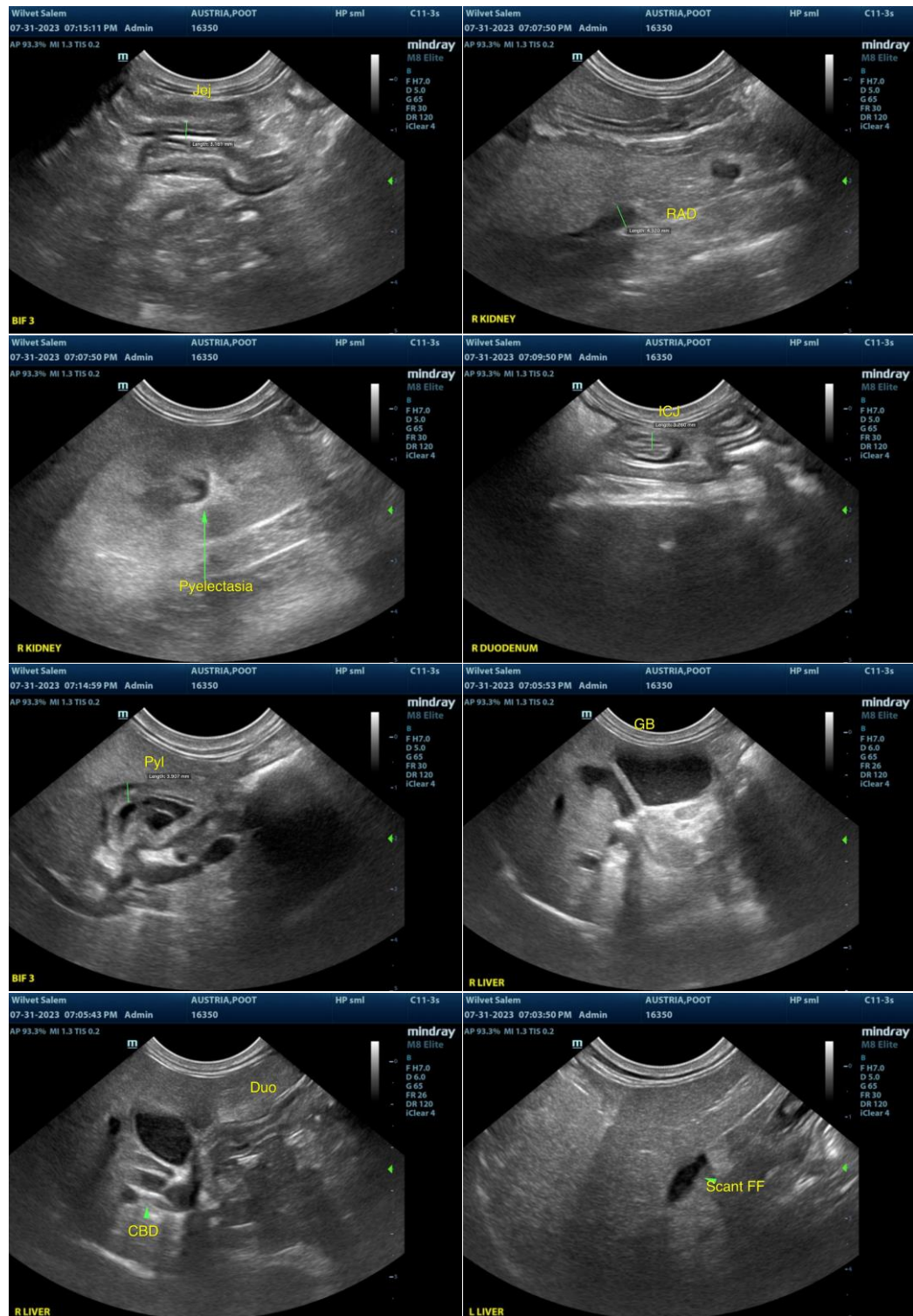
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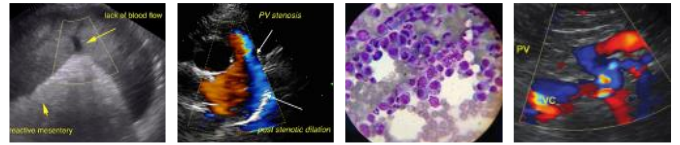
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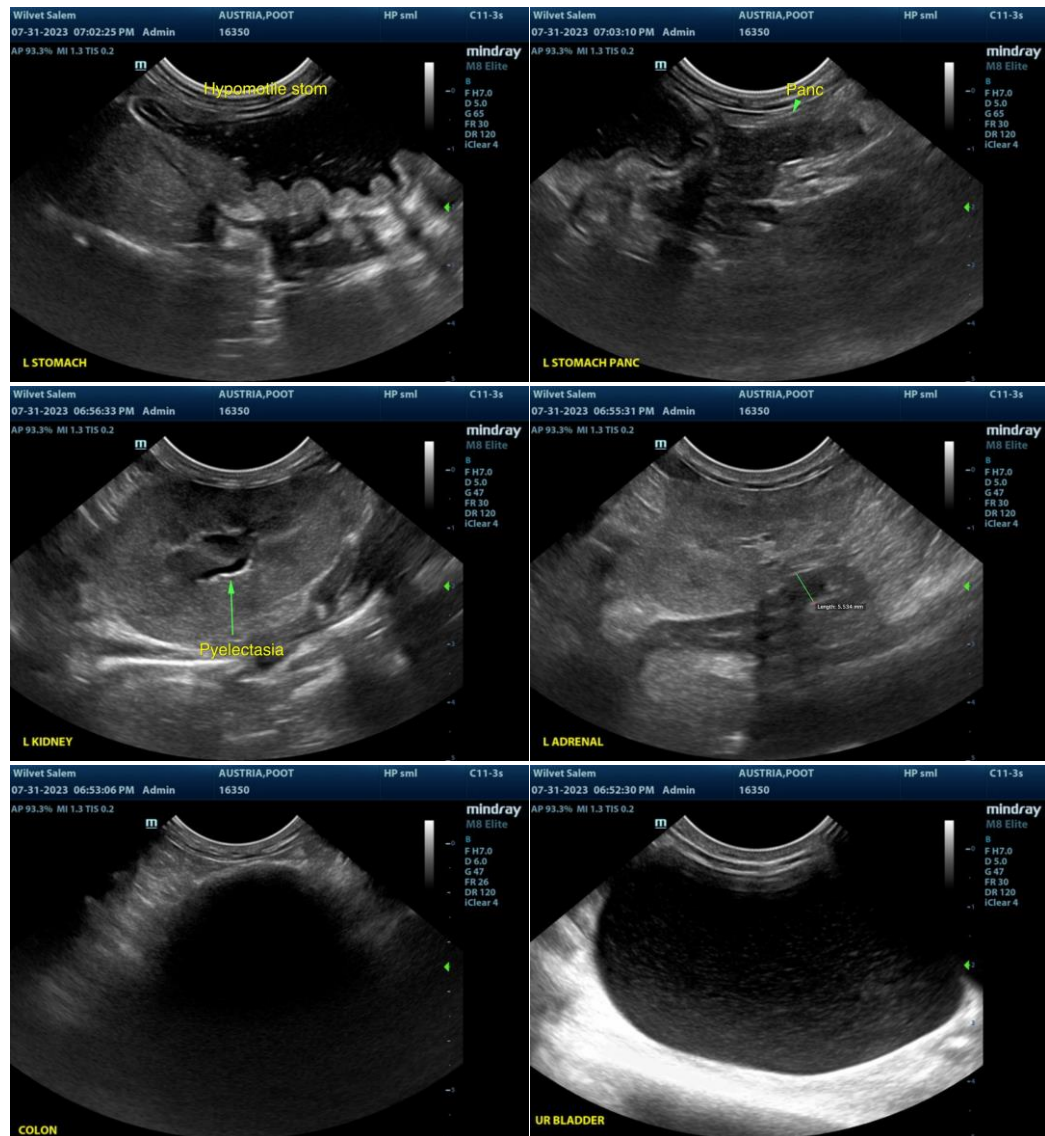
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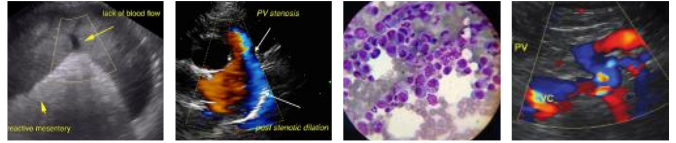
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com



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