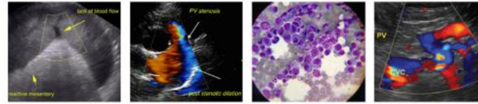
PAUS
Pet Animal Ultrasound Service



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Tuck Tracy

SPECIES

FELINE

BREED

DLH

SEX

MN

AGE

15 years

WEIGHT

9.4 lbs.

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

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME

Norfold County VS

REFERRING VET

Meredith Leoni, DVM

INVOICE

14357

DATE

7/21/22

PRESENTING CLINICAL SIGNS

Patient has a history of hyperthyroidism diagnosed in March as well as a gallop rhythm. Was started on oral methimazole which O reportedly has trouble with. Presented to emergency hospital on 7/4/22 for anorexia and straining to defecate with intermittent diarrhea. Was found to have a thyroid mass and t4 of 20. Referral mentioned next step is AUS. Exam 7/5/22 revealed persistent weight loss, large thyroid mass. No obvious abdominal masses palpable. P was dehydrated and anorexic with a large palpable thyroid mass. Discussed palliation. O requested AUS. P started on gaba, cerenia, and transdermal methimazole. t4- 20, ALT 727, AST 206, ALO 112. On methimazole transdermal 7.5mg SID, cerenia 16mg 1/4 sid, metro 50mg BID, gaba 50mg/ml 0.7ml BID

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. Both kidneys exhibited mild nonuniform increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Both kidneys contained solitary small cortical cysts. An example of a left kidney cortical cyst measured 0.60 cm in diameter. An example of a right kidney cortical cyst measured 0.63 cm in diameter. No evidence of pyelectasia was present. The left kidney measured 4.5 cm in length. The right kidney measured 4.5 cm in length.

Adrenal Glands

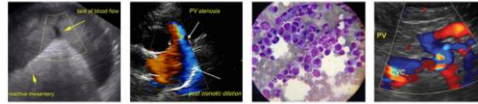
The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.40 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.28 cm width.

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. Mild medial folding of the caudal spleen was noted. The spleen measured 0.68 cm width. No evidence of neoplastic criteria was noted. The folding is likely incidental or a patient variant and is not considered pathological.

Liver/ Gallbladder

The liver exhibited subjective mild enlargement and symmetrical to mildly rounded hepatic contour with mild increased hepatic parenchyma echogenicity exhibiting moderate coarse echotexture and subjective minor parenchymal remodeling. No evidence of hepatic or hepatobiliary masses were



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noted. Normal hepatic vascular volume was present. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material. The gastric body wall width measured 0.25 cm.

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 jejunum wall measured 0.20 cm width. The ileocolic wall measured 0.33 cm width.

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

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

Intermittent mildly prominent mildly hypoechoic colic lymph nodes were present with an example measuring 0.29 cm in diameter. No evidence of additional lymphadenopathy was noted. No omental masses or peritoneal free fluid were present.

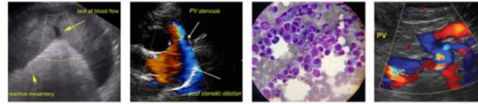
ULTRASONOGRAPHIC FINDINGS

- Normal splenic size with minor folding - likely incidental
- Hepatopathy - subjectively benign
- Bilateral chronic renal changes with focal small cortical cysts
- Overtly normal gastrointestinal tract
- Minor being / reactive colic lymphadenopathy - not consistent with neoplastic criteria

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The elevated liver enzymes in this patient are suspected to be secondary to hyperthyroidism given the significantly elevated T4 level. Primarily parenchymal disease i.e., cholangiohepatitis, vacuolar hepatic changes, reactive hepatopathy, etc., are also possible without evidence of hepatic neoplastic criteria. Hepatosupportive medications with therapy for hyperthyroidism and monitoring of hepatic response would be reasonable. If persistent hepatic enzyme elevation, and assuming normal clotting status, hepatic FNA for screening cytology could be considered for further assessment.

An obvious cause of weight loss was not definitively evident within the abdominal cavity. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate and if not done three view chest radiographs to assess for or rule out occult pathology as a contributing factor.



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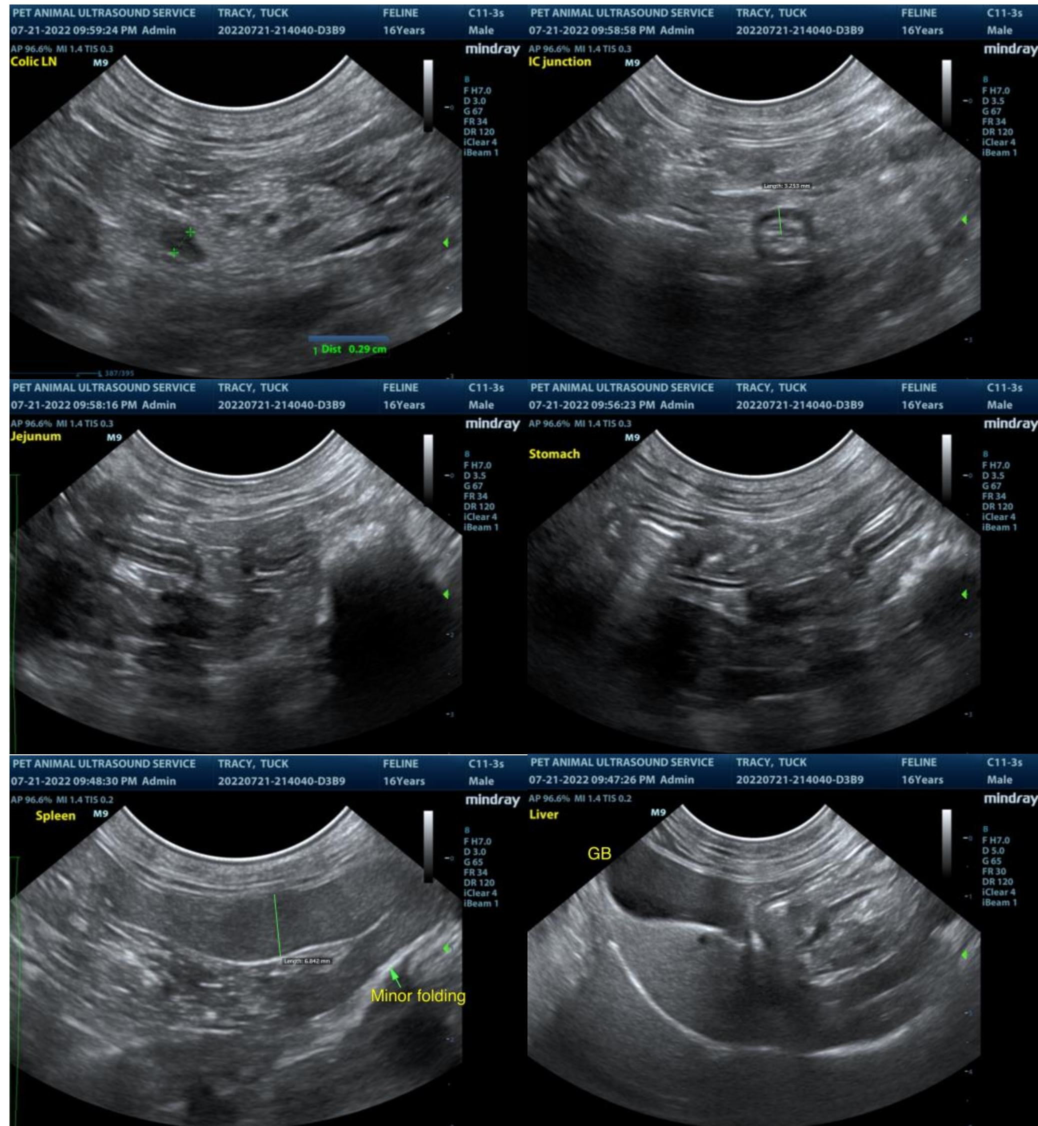
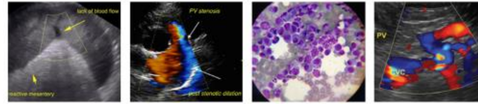
Monitoring of renal parameters is suggested following therapy for hyperthyroidism. Baseline renal staging to include UPC level and systemic BP are suggested. As-needed gastrointestinal support would be reasonable.





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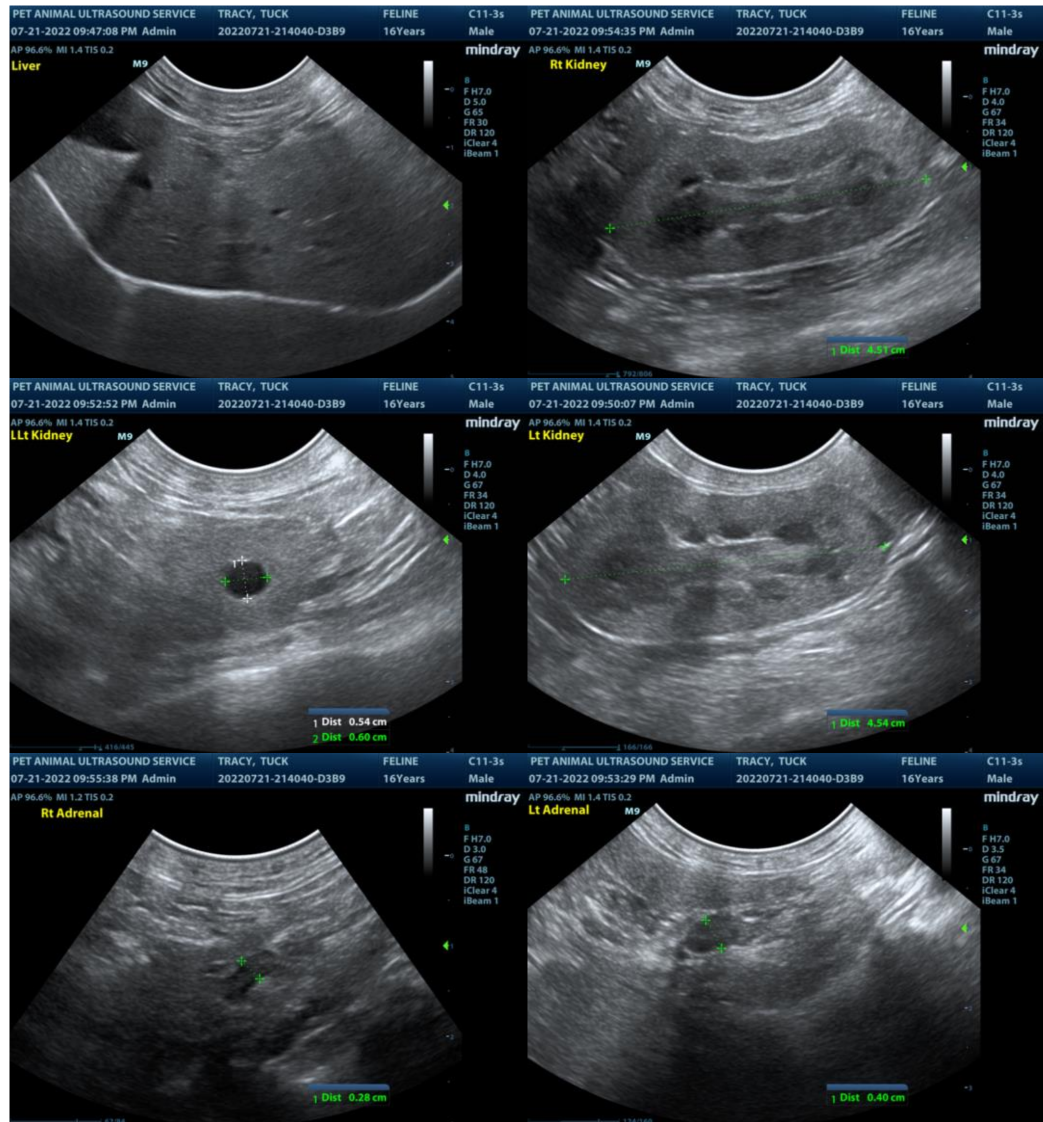

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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