



PATIENT	PRESENTING CLINICAL SIGNS
Khloe Bowman	Patient is currently on Enalapril, Zonisamine, and Apoquel chronically. Earlier this year, she had a grade 1 soft tissue sarcoma removed and we have been watching the site for reoccurrences, which so far have not happened. She also has a history of increasing liver enzymes and proteinuria with no sign of infection. She was recently started on the Enalapril and the UPC ratio has come down but is still elevated. Her only symptom currently is excessive thirst and some increased urination noted by owner. Appetite has been fine and no loose stools noted. Currently all 4 liver enzymes are elevated along with lipase and cholesterol. A bile acid test was run and both pre and post samples were elevated. She also recently developed a new 1/2 cm peduculated, hairless, pink growth on the left front 4yth digit which she has started to lick at excessively.
SPECIES	
Canine	
BREED	
Boston Terrier Mix	
SEX	Abnormal PE/Chem/CBC/UA Results: Attached are the UA results from 9/1/22 Bloodwork and a UA done on 8/2/22 Pre and Post Bile Acids done on 8/31/22 PLT 500, BUN 44, CREAT 1.0, ALP 1596, ALT 353, AST 78, GGT 23, TBIL 0.1 USG 1.015, 2++ pro, UPC 3.1, Post prandial bile acids 71
FS	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
AGE	Urinary System
12yr	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 no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
WEIGHT	Adrenal Glands
20.4	Both adrenal glands presented enlarged in size with asymmetrical capsule contour and hypoechoic to mildly non-uniform non-mineralized parenchyma. The left adrenal gland measured 1.2 cm width at the caudal pole and 1.5 cm width at the cranial pole. The right adrenal gland measured 1.0 cm width at the caudal pole and 1.1 cm width at the cranial pole.
INTERPRETED BY	Spleen
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.
IMAGING PERFORMED BY	Liver
Sammy Burmeister	The liver presented moderately increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. Normal to increased vascular volume was present with minor dilation of the hepatic vasculature.
HOSPITAL NAME	
Faith Animal Care	
REFERRING VET	
Dr. Faith	
INVOICE	
11575ag	
DATE	
09/08/2022	



PATIENT

Khloe Bowman

The gallbladder was non-distended in size with mild generalized wall edema (potentially secondary to sedation) and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

SPECIES

Canine

The stomach presented intact yet prominent wall layering owing to prominent mucosa layer. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

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.

BREED

Boston Terrier Mix

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

Pancreas

SEX

FS

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

Free Abdomen

AGE

12yr

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

WEIGHT

20.4

Primary

- Sonographically unremarkable urinary bladder
- Mild chronic renal changes with minor medullary mineral
- Bilateral adrenomegaly
- Hepatopathy exhibiting mild uniform parenchyma hyperechogenicity
- Mild gallbladder wall edema

INTERPRETED BY

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

Secondary

- Minor pancreatic remodeling
- Prominent gastric mucosa

IMAGING PERFORMED BY

Sammy Burmeister

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

HOSPITAL NAME

Faith Animal Care

A full adrenal workup with LDDST given the bilateral adrenomegaly is warranted. The possibility of emerging neoplastic criteria associated with the left or right adrenal gland such as pheochromocytoma cannot be definitively excluded. Screening BP to assess for evidence of hypertension which may allude to a right/left adrenal pheochromocytoma is recommended. Urine catecholamine levels may be considered if clinical concern for pheochromocytoma or evidence of hypertension.

REFERRING VET

Dr. Faith

Assuming normal clotting status and using a 25g needle a hepatic FNA is recommended for screening cytology to assess for inflammatory cells and rule out neoplasia.

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IMAGING PERFORMED BY

Sammy Burmeister

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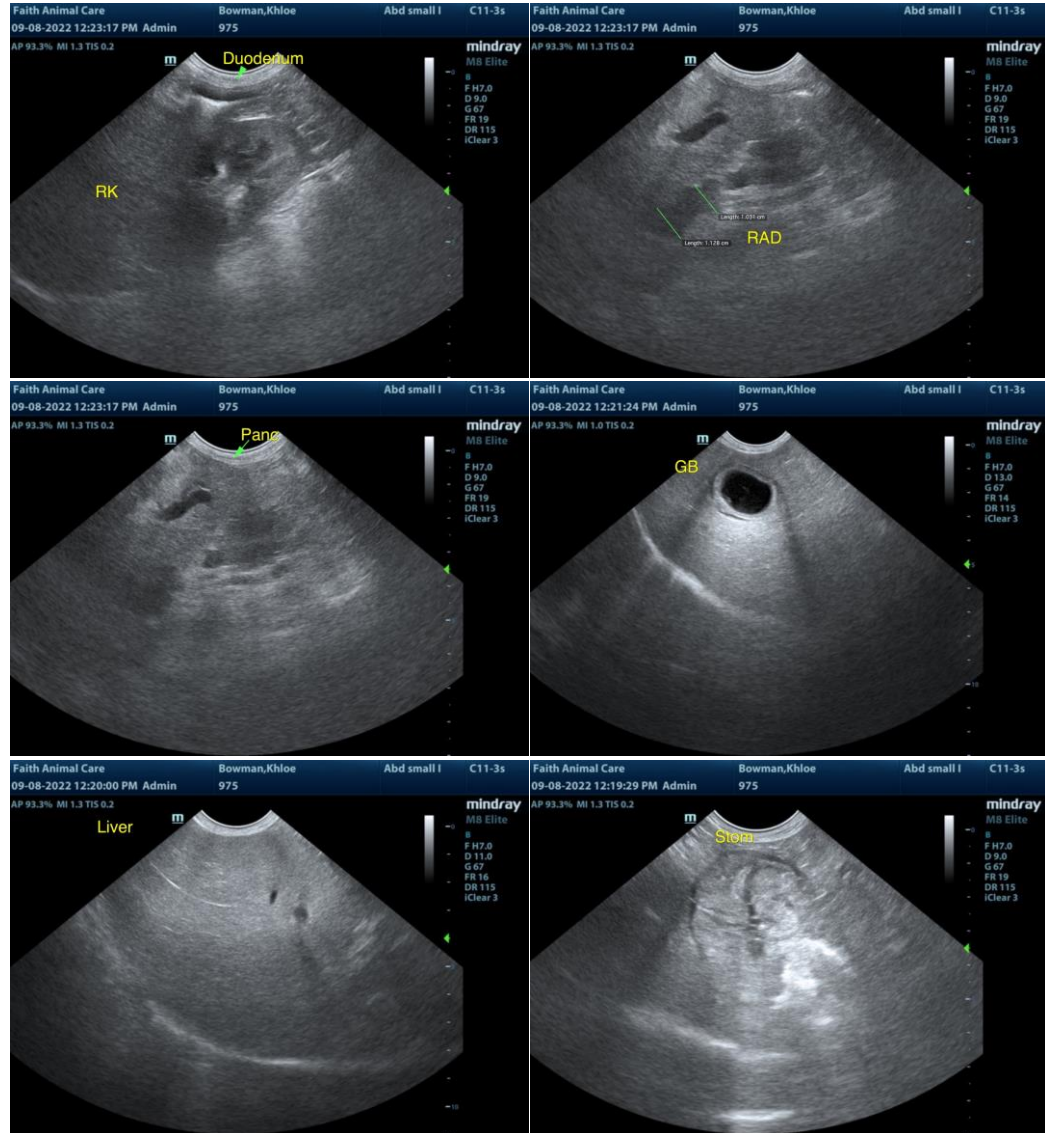
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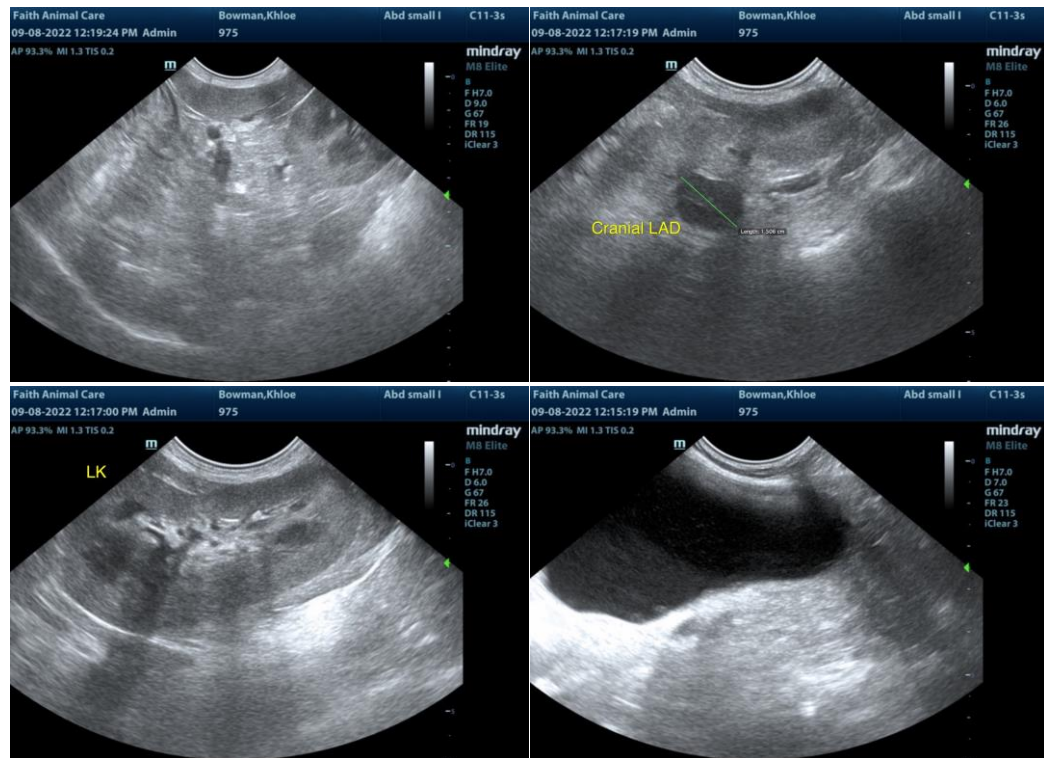
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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