



PATIENT

Marzipan McDowell

PRESENTING CLINICAL SIGNS

History: Asymptomatic pet, gradually progression of elevated ALP, most recently 1184. Other liver values unremarkable

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Shih Tzu mix

The urinary bladder is distended with anechoic urine, and no luminal sediment is present. The pelvic urethra was imaged 1.5 cm beyond the cystourethral junction and appeared normal. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted.

SEX

Neutered male

The prostate is normal in this patient.

AGE

11.5 years

The kidneys are hyperechoic, and exhibit moderately decreased corticomedullary differentiation. There is no evidence of nephrolithiasis, mineralization, pyelectasia or hydronephrosis. The proximal ureter is not visible (normal). The left kidney measures 4.3 cm in length and the right kidney measures 3.9 cm in length.

Adrenal Glands

WEIGHT

13.8 lbs

The adrenal glands are both identified in their normal locations. They are subjectively mildly enlarged for the patients size, but are normal in shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is (6.9) mm at the cranial pole and (4.8) mm at the caudal pole. The right adrenal gland height is (6.1) mm at the cranial pole and (5.0) mm at the caudal pole.

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline
practice)

Spleen

There are multiple hyperechoic masses within the splenic parenchyma measuring up to 0.6 cm in size, with no visible deviation of the splenic capsule. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

IMAGING PERFORMED BY

Dr. Mengine

Liver

HOSPITAL NAME

Stoney Creek VH

The liver is diffusely hyperechoic and subjectively enlarged. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

REFERRING VET

Dr. Mengine

The gallbladder is distended with a moderate amount of echogenic sludge. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

INVOICE

31681

Gastrointestinal

The stomach is empty. The gastric wall is (0.34) cm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

DATE

7/14/22



PATIENT	The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenal wall measures (0.4) cm. The jejunal wall measures up to (0.35) cm. Intestinal motility appears normal.
Marzipan McDowell	
SPECIES	The visible portions of the colon are of normal thickness, up to (0.14) mm, with intact wall layering. The ileocecal junction is visualized and appears normal.
Canine	
BREED	<i>Pancreas</i>
Shih Tzu mix	The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.
SEX	<i>Free Abdomen</i>
Neutered male	There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.
AGE	
11.5 years	
WEIGHT	ULTRASONOGRAPHIC FINDINGS
13.8 lbs	PRIMARY FINDINGS:
	Reactive hepatopathy.
INTERPRETED BY	SECONDARY FINDINGS:
Tam Mengine, DVM, DABVP (canine/feline practice)	Chronic renal changes.
	Mildly plump adrenal glands.
IMAGING PERFORMED BY	Moderate amount of gallbladder sludge.
Dr. Mengine	
HOSPITAL NAME	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Stoney Creek VH	The changes in the liver are non-specific and could be attributed to endocrine disease, other vacuolar hepatopathies, reactive hepatopathy, storage hepatopathy, chronic infectious or inflammatory disease (including leptospirosis), hepatic lipidosis, or less likely neoplasia. Ultrasound-guided or laparoscopic biopsies would be needed for definitive diagnosis. Recommendations include:
REFERRING VET	<ul style="list-style-type: none"> ❖ screening for diabetes mellitus and hyperlipidemia if not already performed ❖ testing for Cushing's disease is recommended only if clinical signs support the diagnosis ❖ bile acid testing is recommended to further assess severity of hepatic disease - if elevated then liver biopsies should be considered ❖ if bile acids are normal, but the ALT is increased, then initiation of liver support therapies such as SAMe, Vitamin E and ursodiol, along with serial monitoring of liver enzyme levels every 2-3 months, could be initiated
Dr. Mengine	
INVOICE	
31681	
DATE	
7/14/22	



PATIENT

Marzipan McDowell

The mobile sludge in the gallbladder shows no evidence of mucocele formation at this time. Recommendations include:

- ❖ monitoring for progression in 2-3 months time is recommended
- ❖ treatment with ursodiol could be considered, especially if there are concurrent elevations in cholestatic enzymes

SPECIES

Canine

The changes in the kidneys are consistent with chronic renal disease. Recommendations include:

- ❖ a CBC, chemistry panel, urinalysis, urine protein creatinine ratio and blood pressure measurement are recommended
- ❖ urine culture should also be considered, particularly if urine sediment is active
- ❖ dietary and supportive care recommendations can be made, based on the staging of the disease as outlined in the IRIS guidelines

BREED

Shih Tzu mix

SEX

Neutered male

Given the mildly plump adrenal glands testing for Cushing's disease may be warranted especially if clinical signs develop. Hypertrophy due to stress is also a consideration.

AGE

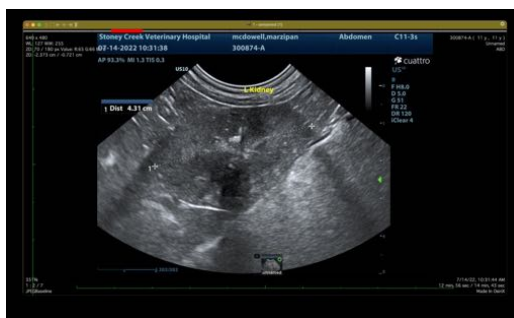
11.5 years

WEIGHT

13.8 lbs

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline practice)



IMAGING PERFORMED BY

Dr. Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

Dr. Mengine



INVOICE

31681

DATE

7/14/22



PATIENT

Marzipan McDowell

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.

SPECIES

Canine

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.

Tam Mengine, DVM, DABVP (canine/feline practice)

BREED

Shih Tzu mix

info@SonoPath.com

SEX

Neutered male

AGE

11.5 years

WEIGHT

13.8 lbs

INTERPRETED BY

Tam Mengine, DVM,
DABVP (canine/feline
practice)

**IMAGING
PERFORMED BY**

Dr. Mengine

HOSPITAL NAME

Stoney Creek VH

REFERRING VET

Dr. Mengine

INVOICE

31681

DATE

7/14/22