

**PATIENT PRESENTING CLINICAL SIGNS**

Munchkin Parkinson PU/PD; no other clinical signs. Good appetite. Markedly elevated ALT (11/22/21 - 1635), one month prior was 10,998. On Levothyroxine, Apoquel, Denamarin \*FNA of liver taken at time of ultrasound exam

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Shih Tzu

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of - cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild non-dependent particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

**SEX**

Spayed Female

Both kidneys presented normal size and margination. Mild to moderate loss of corticomedullary border demarcation noted. Both kidneys exhibited multifocal areas of primarily pinpoint to focal mineralization along the inner corticomedullary border as well as in the medulla. No evidence of pyelectasia. The left kidney measured 4.7 cm. The right kidney measured 5.3 cm.

**AGE**

8 Years

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

17.5 Pounds

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.46 cm at the cranial pole and 0.47 cm at the caudal pole. The right adrenal gland measured 0.37 cm at the cranial pole and 0.39 cm at the caudal pole.

**INTERPRETED BY**

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

**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.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDMS

**Liver**

The liver revealed a moderately sized to expansive, non-homogeneous mass appearing to primarily involve the right to caudate liver lobes. The mass measured approximately 9-10 cm in diameter. The mass appeared to extend caudally, potentially to the level of the stomach. The gallbladder was non distended in size with echogenic, nonmineralized, non dependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted rim visible between the nondependent sludge and inner wall. No signs of peripheral inflammation.

**HOSPITAL NAME**

Chase Vet Clinic

**REFERRING VET**

Dr. Caffarella

**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. No overt evidence of displacement by the hepatic mass. Gastric body wall measured 0.41 cm.

**INVOICE**

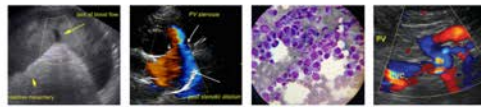
33266

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. Duodenum wall measured 0.38 cm. Jejunum wall measured 0.33 cm.

**DATE**

12/5/21

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



**PATIENT** *Pancreas*

Munchkin Parkinson

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 was evident.

**SPECIES**

Canine

**ULTRASONOGRAPHIC FINDINGS**

- Expansive non-homogeneous liver mass appearing to involve the right to caudate liver lobes
- Moderate gallbladder debris, possible early mucocele
- Bilateral multifocal areas of medullary mineral

**BREED**

Shih Tzu

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**SEX**

Spayed Female

Although sampling is required for further clarification, the liver mass is most suggestive of neoplastic criteria such as adenocarcinoma or other. Potential for non-homogeneous hyperplasia, granuloma, or similar possible, yet thought less likely. Given the mass location and potential extension into the area of the porta hepatis, surgical options for complete mass resectability are likely limited. Core biopsy of the mass may be required for definitive diagnosis. In addition to current hepatosupportive medications, Ursodiol is suggested with recheck sonogram if increasing evidence of cholestasis. CT evaluation of the mass could be considered if surgical options are a possibility. 3-view chest radiographs recommended.

**AGE**

8 Years

**WEIGHT**

17.5 Pounds

**INTERPRETED BY**

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



**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS



**HOSPITAL NAME**

Chase Vet Clinic

**REFERRING VET**

Dr. Caffarella

**INVOICE**

33266

**DATE**

12/5/21



**PATIENT**

Munchkin Parkinson

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

17.5 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Chase Vet Clinic

**REFERRING VET**

Dr. Caffarella

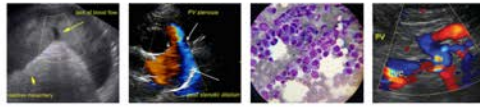
**INVOICE**

33266

**DATE**

12/5/21





**PATIENT**

Munchkin Parkinson

The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

**BREED**

Shih Tzu

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

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

17.5 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Chase Vet Clinic

**REFERRING VET**

Dr. Caffarella

**INVOICE**

33266

**DATE**

12/5/21