



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Molly Davis	Healthy on GPE meds: denosyl 90mg SID Abnormal PE/Chem/CBC/UA Results: elevated ALT, all rest WNL
<b>SPECIES</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
Canine	<b>Urinary System</b>
<b>BREED</b>	The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.
Toy Poodle	
<b>SEX</b>	The right kidney is normal in size (3.28 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.
Spayed Female	
<b>AGE</b>	The left kidney is normal in size (3.68 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.
7 Years	
<b>WEIGHT</b>	<b>Adrenal Glands</b>
7 Pounds	The right adrenal gland is normal in size (1.42 cm long x 1.16 cm at the cranial pole and 0.52 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.
<b>INTERPRETED BY</b>	The left adrenal gland is normal in size (1.61 cm long x 0.44 cm at the cranial pole and 0.40 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.
Beth Johnson, DVM DACVIM	
<b>IMAGING PERFORMED BY</b>	<b>Spleen</b>
Kelly Reschny	The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.
<b>HOSPITAL NAME</b>	<b>Liver</b>
Queensdale AH	The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypochoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.
<b>REFERRING VET</b>	
Dr. Chaudhary	
<b>INVOICE</b>	The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.
46030	<b>Gastrointestinal</b>
<b>DATE</b>	The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
3/21/23	The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.



**PATIENT**

Molly Davis The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**SPECIES**

***Pancreas***

Canine

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**BREED**

Toy Poodle

***Free Abdomen***

**SEX**

There is no evidence of free peritoneal effusion noted in these images.

Spayed Female

There is no apparent lymphadenopathy noted in these images.

**AGE**

**ULTRASONOGRAPHIC FINDINGS**

7 Years

- Relatively unremarkable/normal abdomen
- An obvious cause for the reported increased liver enzymes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, infiltrative neoplasia (considered unlikely), etc. cannot be definitively ruled out.

**WEIGHT**

7 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommendations for this patient depend in part on the level of ALT increase. Differentials for a primary hepatocellular injury liver enzyme pattern (increased ALT) depend partially on the level of increase. Mild increases (less than 2 times normal) are often a “reactive hepatopathy” or the liver’s response to an insult elsewhere in the body including, but not limited to, pancreatitis, gastroenteritis, parasitic disease, dental disease, vacuolar or endocrine hepatopathy from diabetes mellitus or hyperadrenocorticism (steroid-induced), hypoadrenocorticism, certain drugs (e.g. phenobarbital, corticosteroids, azathioprine, etc.), and muscle ALT (more likely if AST and CK concurrently increased).

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Queensdale AH

It is a good indicator of active liver damage (cell membrane disruption, cellular necrosis), however, if the value is increased by at least 3-4 times normal. Differentials include infectious disease, including Leptospirosis, inflammatory disease (ie. active hepatitis, copper, other), toxic insult as well as infiltrative neoplasia.

**REFERRING VET**

Dr. Chaudhary

ALT levels vary in cases of vascular anomalies such as microvascular dysplasia and portosystemic shunts (PSS), but are often less significantly increased.

**INVOICE**

46030

Recommendations include an “antigen search” for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is not noted and/or enzyme increase progresses, a liver biopsy may be warranted.

**DATE**

3/21/23



**PATIENT**

Molly Davis

**SPECIES**

Canine

**BREED**

Toy Poodle

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

7 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Queensdale AH

**REFERRING VET**

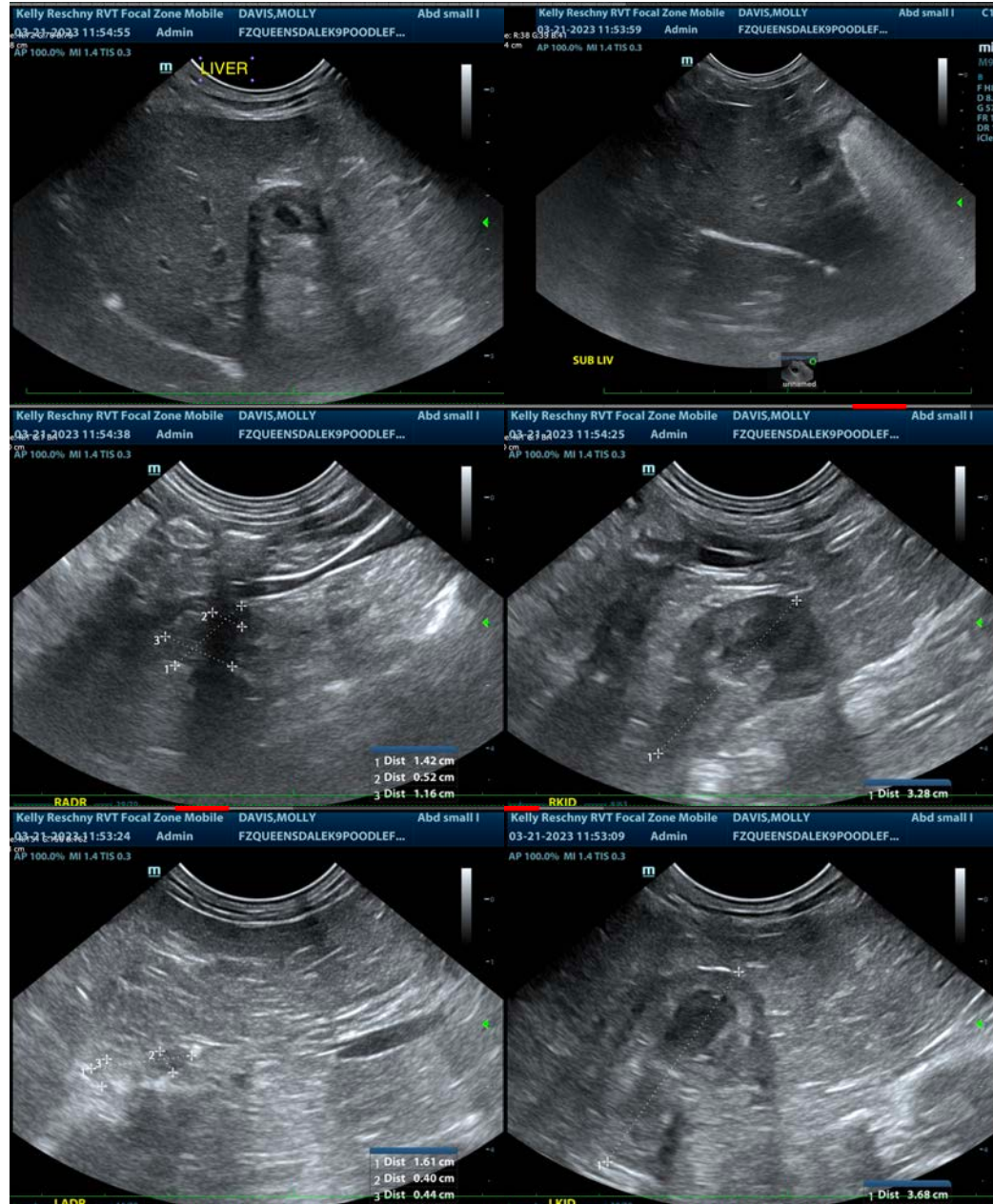
Dr. Chaudhary

**INVOICE**

46030

**DATE**

3/21/23



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.

**Beth Johnson, DVM, DACVIM**  
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