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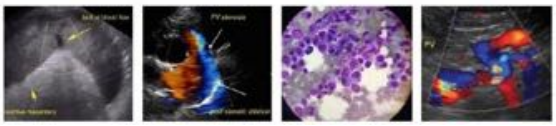

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

**PATIENT**

Petey Muller

**SPECIES**

Feline

**BREED**

DLH

**SEX**

Neutered Male

**AGE**

10 years

**WEIGHT**

5.12 kg

**INTERPRETED BY**

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Wellington AH

**REFERRING VET**

Dr. Dennis

**INVOICE**

11358

**DATE**

8.8.22

## PRESENTING CLINICAL SIGNS

History: jaundiced, decreased appetite, concern for liver disease vs methimazole use **had PU surgery a few years ago.

Abnormal PE/Chem/CBC/UA Results: please see attached BLADDER WALL
Bloodwork shows ALP 168. tBili 5-fold elevated. GGT 11. USG 1.060. Trace proteinuria. ALT 1273.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The **urinary bladder** is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The **left kidney** is normal size (4.01 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (4.01 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The **left adrenal gland** is normal size (0.42 cm length; 0.22 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is normal size (0.40 cm length; 0.33 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

### *Spleen*

The **spleen** is normal in size (0.83 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

### *Liver*

The **liver** is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A scant amount of gravity dependent, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

### *Gastrointestinal*

The **gastric lumen** is moderate distended with ingesta and soft, shadowing material. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

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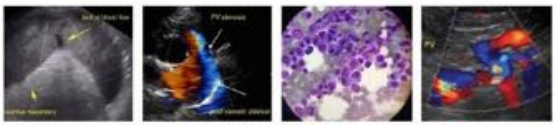

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***Pancreas***

The region of the **pancreas** is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

***Free Abdomen***

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, lymphoplasmacytic hepatitis, hepatic lipidosis, infiltrative neoplasia (less likely)) cannot be excluded.

### Secondary Findings

- Minor bilateral, age-related renal changes
- The shadowing material within the gastric lumen may represent normal ingesta and/or foreign material (i.e., trichobezoar).

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) would be necessary to get a definitive diagnosis. Hepatic cytology is better for evaluating for hepatic lipidosis and lymphoma but is less useful in diagnosing other hepatopathy. Surgical biopsies are more likely to yield a definitive diagnosis. If biopsies are pursued, aerobic and anaerobic bile cultures are also recommended. Three-view thoracic radiographs and clotting times (PT/PTT) should be performed prior to anesthesia.

If a conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, +/-metronidazole, Denamarin). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

Consider nutritional support (i.e., via a temporary feeding tube) to help prevent/treat hepatic lipidosis.

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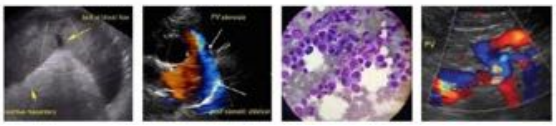

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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Andrea Nicastro**, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com