



**PATIENT PRESENTING CLINICAL SIGNS**

**Missy Mahadeo** History: History of elevated ALP, want to assess liver, adrenals, possible GI bleed. currently on Enalapril, Furosemide, Pimobendan, topical ketoconazole, hepatic support.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Ehrlichia positive on 4dx. Mild leukopenia, mild neutropenia. BUN is slightly elevated at 12.4. ALP is 806.

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

Pomeranian

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is distended with anechoic urine. A small amount of suspended, echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**SEX**

Female Spayed

The left kidney is normal size (5.51 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**AGE**

8 Years

The right kidney is normal size (5.01 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. At least one small cortical cyst is visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

6.4 kgs.

*Adrenal Glands*

**INTERPRETED BY**

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

The left adrenal gland is enlarged (0.57 cm at cranial pole) (0.75 cm at caudal pole) (1.86 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Kelly Reshny, RVT

The right adrenal gland is mildly enlarged (1.61 cm at cranial pole) (0.77 cm at caudal pole) (2.52 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Sixteen Mile VC

*Spleen*

The spleen is normal in size (0.88 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.

**REFERRING VET**

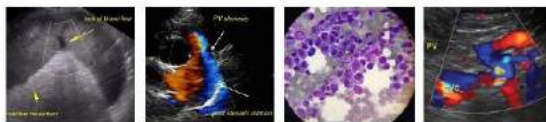
Dr. Bile

*Liver*

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder is distended. The wall is normal in thickness. A large amount of aggregated, echogenic, suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**INVOICE**  
11913kk

**DATE**  
9/28/21



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Missy Mahadeo

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***Gastrointestinal***

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. 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 not dilated. 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. No obstructive disease is noted.

***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:**

- The gall bladder changes are consistent with a developing mucocele.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Mild bilateral adrenomegaly

**Secondary Findings:**

- Bilateral, age-related renal changes with dystrophic mineralization.
- Urinary bladder debris.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

1. Regarding the gall bladder, if an aggressive approach is desired, consider referral to a board-certified veterinary surgeon for a cholecystectomy, as mucoceles have the potential to rupture resulting in bile/septic peritonitis. If a more conservative approach is desired, consider initiation of Ursodiol therapy with serial sonographic monitoring (i.e. every 4-6 weeks) of the gall bladder to assess for progression.
2. Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.



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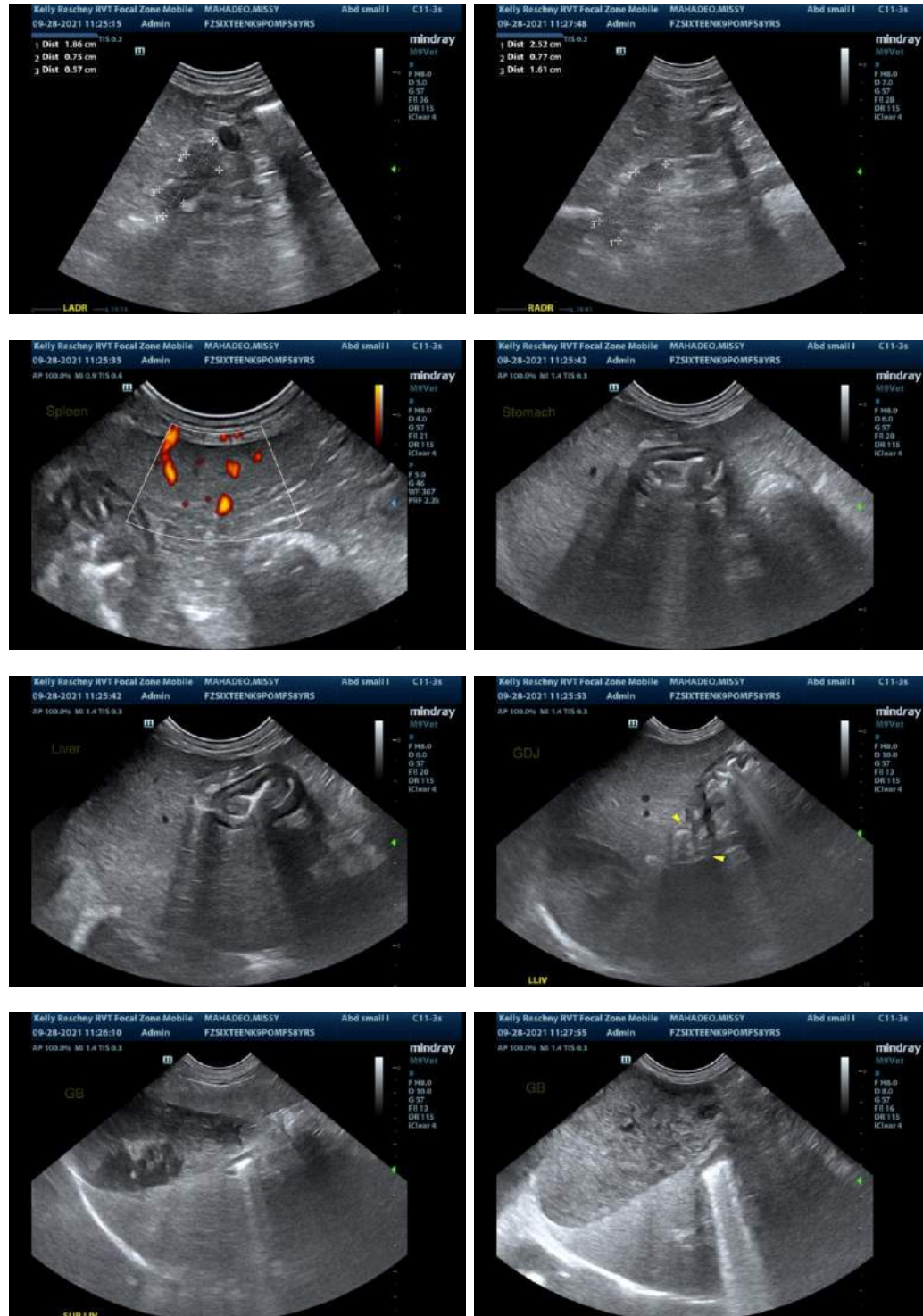
Sixteen Mile VC

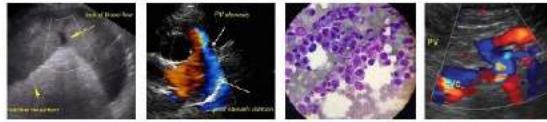
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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