

**PATIENT**

Riley Covone

**SPECIES**

Canine

**BREED**

Maltese Mix

**SEX**

Neutered Male

**AGE**

10 years

**WEIGHT**

12.7 lbs

**INTERPRETED BY**

Jessica Midence, DVM,  
DACVIM (SAIM)

**IMAGING PERFORMED BY**

Megan Cassels-Conway, DVM

**HOSPITAL NAME**

Central Broward AH

**REFERRING VET**

Janeen Lezcano,  
DVM

**INVOICE**

12519

**DATE**

3.24.23

**PRESENTING CLINICAL SIGNS**

History: P presented for biannual wellness exam. Also has hx of increase ALP level with recent increase in ALT. Presently on Ursodiol 250mg 1/4 tab po bid. At present p has no symptoms.

Abnormal PE/Chem/CBC/UA Results: 3/23: CBC: WNL, Chem: ALT: 354, ALP: 899H, choles: 325H, triglyc: 631H, T4: 1.7, UA: SG: 1.033, 2+ prot, quiet sediment. 9/22: CBC: plt ct: 539H, miniChem: ALP: 727H Previous AUS performed by internist showed cystoliths, plump adrenal glands R>L, hyperechoic liver w rounded edges, bilat renal cysts, segments of SI wall measured in upper end of normal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder mucosa, trigone, and visible urethra are normal in thickness and there is no evidence of mucosal irregularities. The bladder lumen has a small volume of anechoic urine with scant hyperechoic suspended speckles. Bladder thickness is considered normal for volume of urine. Towards the trigone of the bladder, there are two clusters of small hyperechoic cystic calculi, that may be adherent to the wall.

The prostate measures appropriate (0.64 cm) for the neutered status of the dog. The parenchyma appears homogenous.

The left kidney is normal shape and smooth peripheral margins and measures 0.43 cm. The cortex is hyperechoic overall with hyperechoic speckling/striations consistent with nephrocalcinosis. There is mildly decreased corticomedullary distinction and blurring of the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal shape and smooth peripheral margins and measures 4.59 cm. The cortex is hyperechoic overall with hyperechoic speckling/striations consistent with nephrocalcinosis. There is mildly decreased corticomedullary distinction and blurring of the corticomedullary junction. There is a small anechoic cortical cyst. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**Adrenal Glands**

The left adrenal gland is normal in size (cranial pole 0.59 cm / caudal pole 0.62 cm). The left adrenal gland has normal in shape, though it does have a rounded/plump appearance, and is normal in echogenicity.

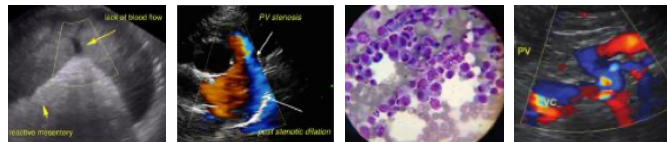
The right adrenal gland is enlarged. The minimum width measures 0.98 cm at the caudal pole. The entire adrenal gland is rounded. Although it is less than 2.00 cm, it may be an emerging mass, given it is so rounded-looking. The fat around the right adrenal gland is hyperechoic.

**Spleen**

The splenic echotexture is homogeneous with parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule is smooth with no irregularities. The splenic vasculature is normal without signs of congestion or thrombosis.

**Liver**

The liver is subjectively enlarged with normal contours, structure, with smooth peripheral margins. The echogenicity appears hyperechoic with decreased portal markings. No overt evidence of inflammatory, infiltrative or regenerative pathology is evident. The visible portions of the vasculature and biliary tract appear normal. No pathological hepatic lymphadenopathy observed.



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The gallbladder lumen is significantly distended. The wall is a normal thickness and smooth. There is a large volume of dependent hyperechoic debris/sludge. Luminal contents are anechoic. The cystic and common bile ducts are normal/not visible.

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**Gastrointestinal Tract**

The gastric lumen is empty. The stomach measures 0.30 cm and was empty. There is normal gastric wall layering. There are no masses or focal lesions observed and the pyloric outflow tract appears normal.

**BREED**

Maltese Mix

The visualized areas of duodenum, jejunum and ileum appear normal in thickness. The duodenum is normal (0.45 cm) with distinct wall layering. There is hyperechoic mucosal speckling within the duodenum that is centered more around the mucosal surface. The remainder of the small intestines are normal with normal wall layering. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. No focal lesions observed.

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The distal colon was empty.

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**Pancreas**

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. The visible pancreatic duct was normal.

**WEIGHT**

12.7 lbs

**Peritoneum**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The omentum is of normal uniform echogenicity.

**ULTRASONOGRAPHIC FINDINGS**

**INTERPRETED BY**

Jessica Midence, DVM,  
DACVIM (SAIM)

**Primary Findings**

- Adrenomegaly on the right
- Significant Gall bladder sludge
- Chronic degenerative renal changes
- Small cystoliths

**IMAGING PERFORMED BY**

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**Secondary Findings**

- Duodenal mucosal speckling
- Hyperechoic hepatomegaly

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

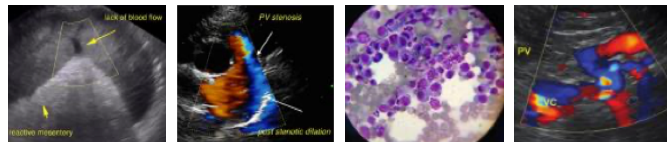
The right adrenal gland is enlarged and very rounded. This could be a nonfunctional adenoma. Given the lab-work changes adrenal gland hyperfunction is possible or emerging, and testing should be considered if any symptoms emerge. Also consider recheck ultrasound to monitor for progression into an adrenal gland mass. There is significant dependent Gall bladder sludge. Consider increasing the dose of Ursodiol to 15mg/kg BID and perhaps a low-fat diet if the patient is hypertriglyceridemic when fasted. There are changes to the kidneys that suggest renal degeneration. The nephrocalcinosis is considered incidental and is of little clinical importance. There are a two small clusters of small bladder stones. They may be adherent to the wall of the bladder. Monitor for signs of dysuria. The mucosal

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surface in the duodenum was pronounced. This could be consistent with a recent meal if the patient was not fasted. If the patient was fasted this could be normal variation versus underlying chronic enteropathy. Monitor for signs of intestinal disease. The changes to the liver are most consistent with vacuolar hepatopathy or endocrinopathy. Monitor for signs.

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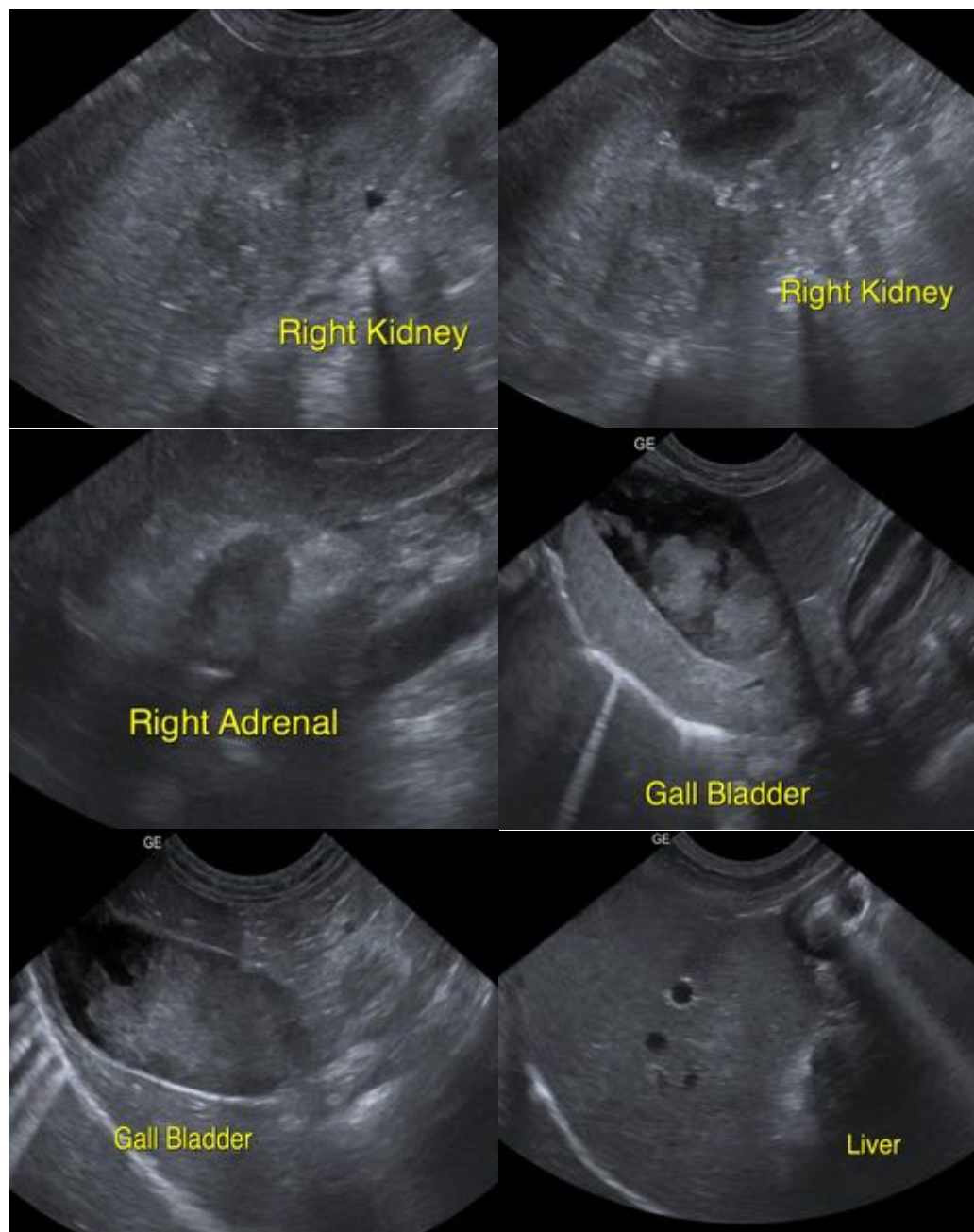
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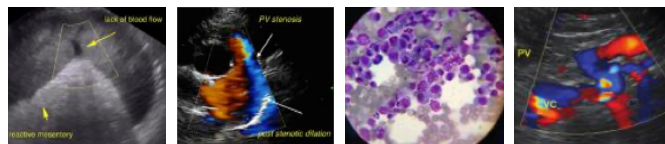
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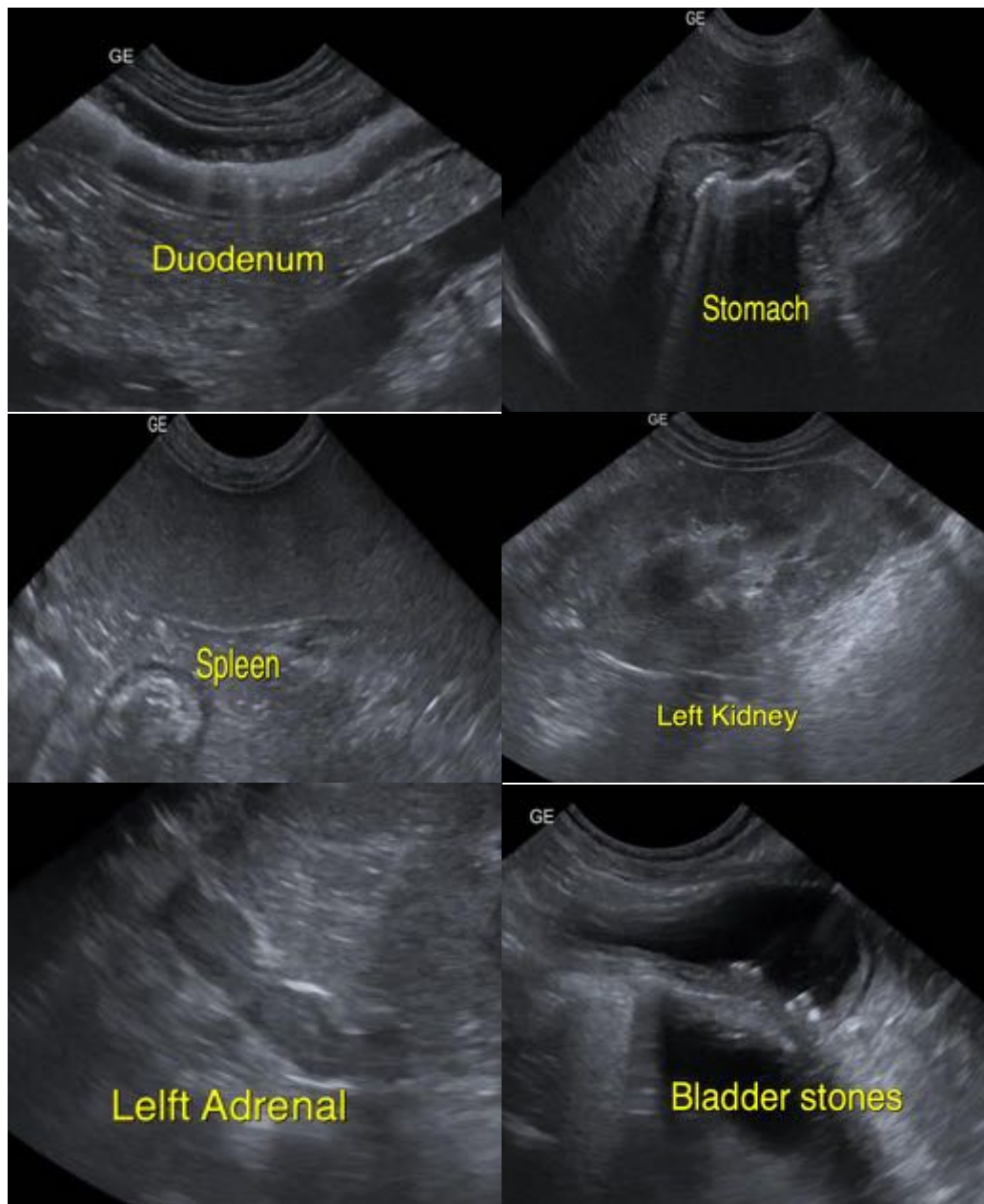
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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info@SonoPath.com