



**PATIENT PRESENTING CLINICAL SIGNS**

Maverick King Elevated ALT and ALP

**SPECIES**

Canine

**BREED**

Weimaraner

**SEX**

Male, neutered

**AGE**

4/1/2011

**WEIGHT**

75 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Flowertown

**REFERRING VET**

Dr. Nawa

**INVOICE**

15153

**DATE**

8/1/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (1.26 cm in width) with smooth curvilinear peripheral contours. A few mineralized foci are observed within the parenchyma. The remaining parenchyma is homogeneous. The prostatic urethra is not overtly dilated.

The left kidney is normal size (7.35 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen and mildly thickened and there is mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (7.15 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic relative to the spleen and mildly thickened and there is mild loss of 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 (0.85 cm at cranial pole) (0.74 cm at caudal pole); 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.

The right adrenal gland is normal size (0.64 cm at cranial pole) (0.71 cm at caudal pole); 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.

*Spleen*

The spleen is overall enlarged with irregular peripheral contours. An approximately 8 cm irregular hyperechoic attenuating mass is arising from the medial aspect. In addition, a 3.37 x 3.20 cm mildly hypoechoic mass is observed at the lateral aspect. Both lesions cause capsular expansion. The remaining parenchyma is slightly mottled in appearance. A few small meylolipomas are observed in the region of the hilus. Splenic vasculature appears normal with no evidence of thrombosis.

*Liver*

The liver is normal to prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is mildly hyperechoic. A small amount of aggregated debris is adhered to the luminal surface. The cystic and common bile ducts are normal/not seen.



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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 ileocecolic junction and colonic wall are 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.

***Other***

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- The hypoechoic splenic mass is concerning for a neoplastic process (i.e., round cell tumor, sarcoma) with a lower possibility of a non-neoplastic process (i.e., focus of lymphoid hyperplasia or similar). The hyperechoic attenuating splenic mass is suspected to be a benign meylolipoma. However, neoplasia (i.e., mast cell tumor) cannot be excluded. The diffuse splenic parenchymal changes are non-specific and could be secondary to lymphoid hyperplasia, extramedullary hematopoiesis, splenitis, antigenic stimulation or infiltrative neoplasia.
- The hepatic parenchymal changes are non-specific and given the liver enzyme pattern, are likely consistent with a benign hepatopathy (i.e., vacuolar hepatopathy, microscopic regenerative nodular hyperplasia) with a lower possibility of inflammatory disease, infiltrative neoplasia or other hepatopathy.

**Secondary Findings:**

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis.
- The mineralized foci within the prostate may be a benign incidental finding. However, prostatic mineralization can be associated with neoplasia.



**PATIENT INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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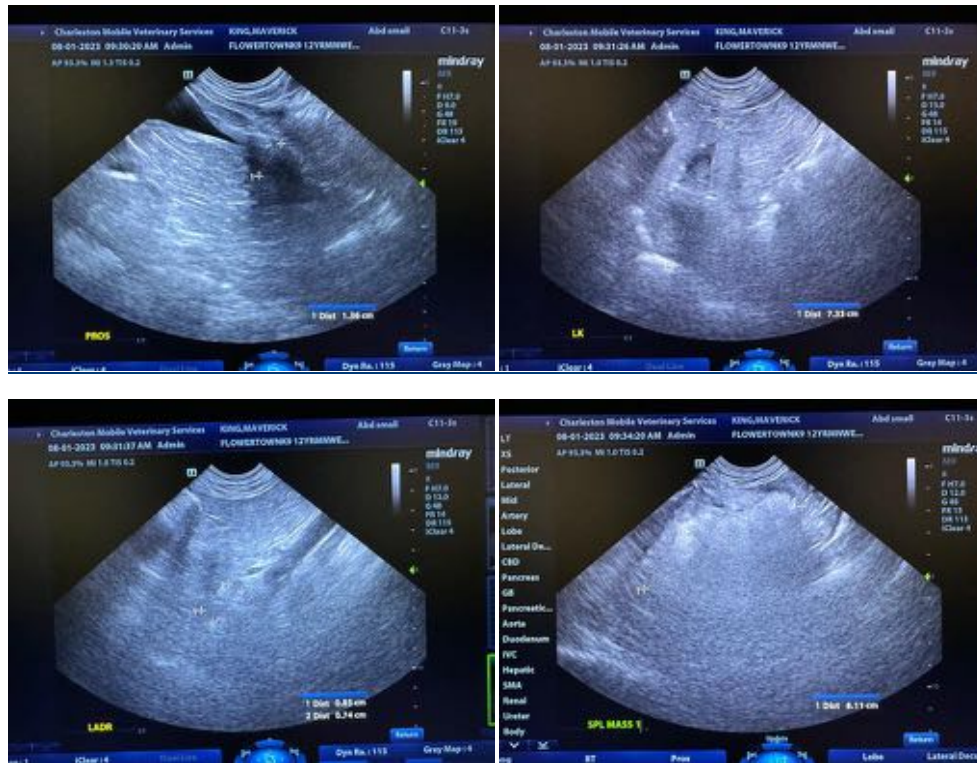
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- Regarding the splenic masses, consider the following:
  - A fine needle aspirate (if clotting status is appropriate). A 25 gauge needle should be used. It is unclear if the hypoechoic mass will be accessible due to its location under the rib cage. If aspirates are not pursued at this time, a recheck ultrasound is recommended in 1 month to assess for growth.
  - Three-view thoracic radiographs to assess for pulmonary metastatic disease.
- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Regarding the mineralization within the prostate, consider the following:
  - Urine BRAF test to further evaluate for prostatic neoplasia. It should be noted that a positive test confirms cancer. However, a negative result does not rule out the possibility of neoplasia. If a BRAF test is not performed at this time, consider a repeat ultrasound in 1-2 months to assess for changes in the prostate.





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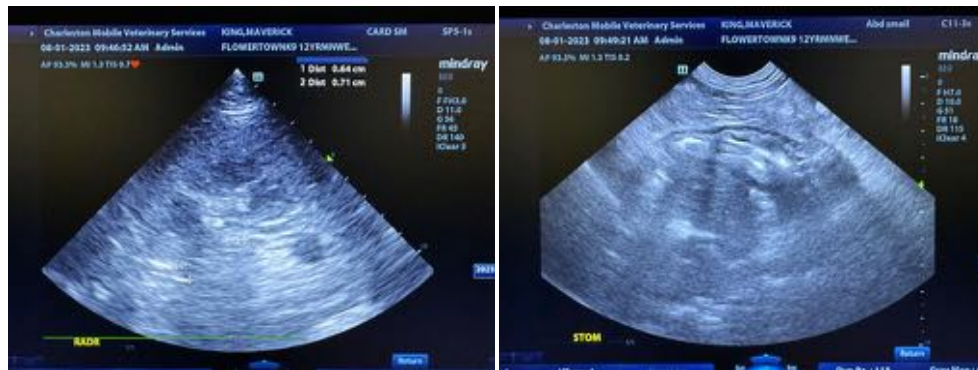
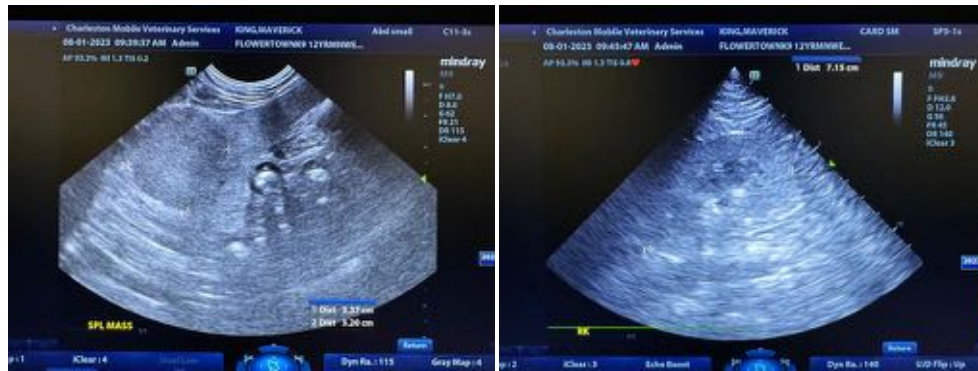
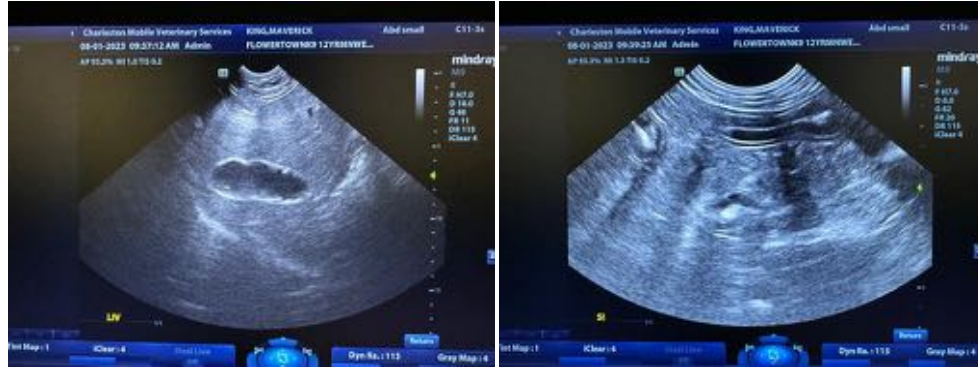
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)  
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