**PATIENT**

Miley Karzin

**SPECIES**

Canine

**BREED**

Lhaso Apso

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

14 Pounds

**INTERPRETED BY**R. McKenzie Daniel, DVM,  
DABVP (Canine and Feline)**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Harmann

**INVOICE**

26108

**DATE**

10/6/21

**PRESENTING CLINICAL SIGNS**

Miley had a splenic tumor (discover SVS ultrasound 6-21-2021). Iowa State removed spleen - Osteosarcoma. Miley has been doing well since surgery, but appetite is diminished. Has been on entyce but very reluctant to eat anything.

Abnormal PE/Chem/CBC/UA Results: Rads show liver increased in size from what was seen in June. BW - mild anemia, Neutrophilia, monocytosis, ALKP 370, Glob 4.7

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen. Focal minor dependent mineral was present. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Mild areas of focal medullary mineral noted along with cortical cysts. The left kidney measured 4.7 cm. The right kidney measured 4.7 cm.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The right adrenal gland measured 1.9 cm length x 0.55 cm at the caudal pole. The left adrenal gland measured 1.9 cm length x 0.79 cm at the caudal pole.

**Spleen**

The spleen was not visualized owing to previous splenectomy. No overt pathology in the area of the spleen.

**Liver**

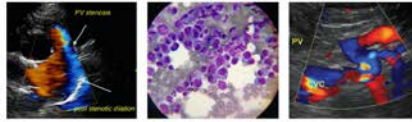
The liver exhibited generalized enlargement with multifocal, variably sized to expansive, non-homogeneous masses, some of which exhibited evidence of mineralization. The masses distorted the splenic capsule. Example measured 4.5 cm and 6.1 cm in diameter. The gallbladder was non distended in size with mild, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

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**Pancreas**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**Free Abdomen**

No overt lymphadenopathy. Mild perihepatic reactive mesentery was noted along with minor perihepatic free fluid.

**PRIMARY FINDINGS**

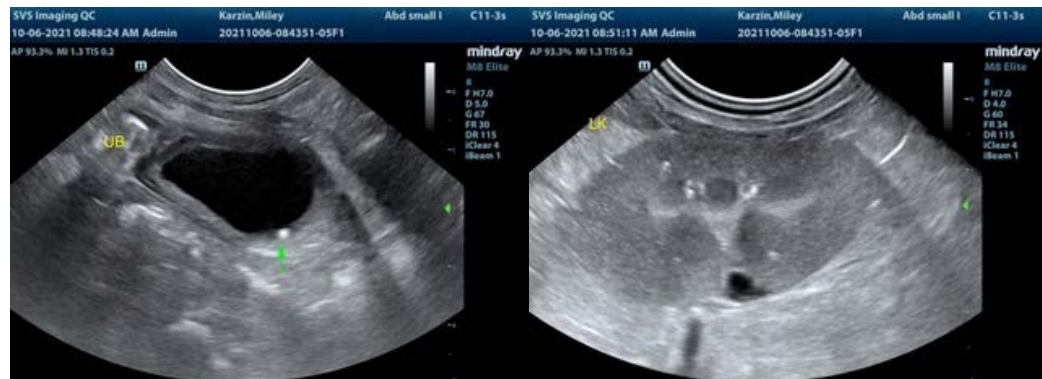
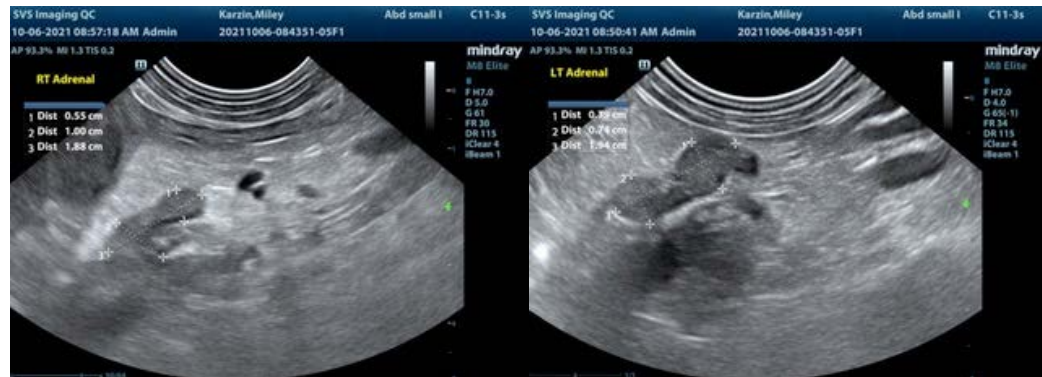
- Multifocal non-homogeneous to mineralized liver masses

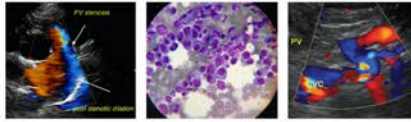
**SECONDARY FINDINGS**

- Bilateral chronic renal changes with medullary mineral and cortical cysts
- Pinpoint urinary bladder luminal mineral

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Unfortunately, the multifocal liver masses exhibiting evidence of mineralization is consistent with metastatic liver disease owing to previous splenic osteosarcoma. A poor prognosis is unfortunately indicated. Consideration for humane euthanasia is suggested.





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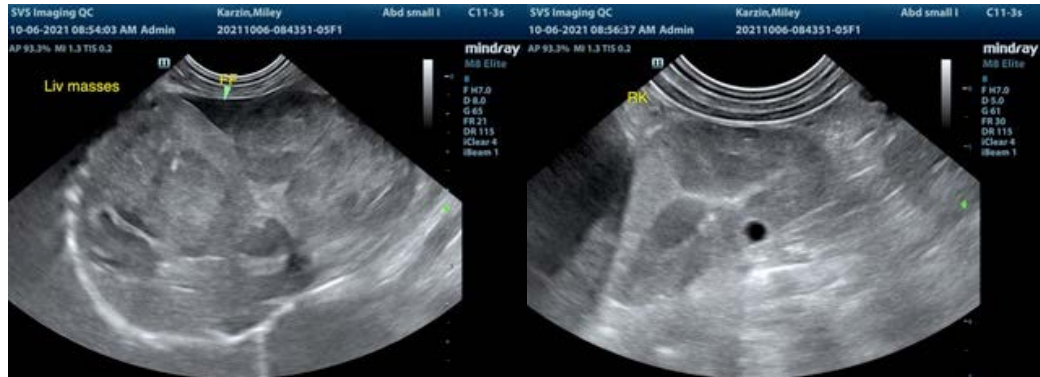
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com