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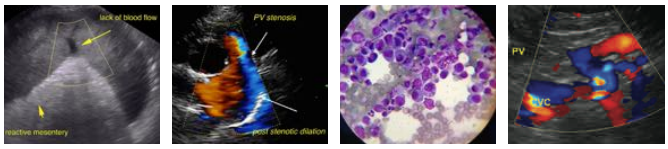


PATIENT
Mozart Mundell

SPECIES
Canine

BREED
Shih Tzu

SEX
Neutered male

AGE
6 years

WEIGHT
14.2 lbs

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
Potomac Mobile Veterinary Ultrasound

HOSPITAL NAME
Glenkirk AH

REFERRING VET
Dr. Jarrett

INVOICE
92090

DATE
9/29/21

PRESENTING CLINICAL SIGNS

History: Having tremors; possible seizures. Elevated liver values. Getting Actigal, Clavamox and Denamarin. Also has deep inflammation around paws; started about 2-3 days ago. pretty severe. Chewing at the feet.
ALT 600,ALP 396, AST 118, GGT 72, Bili 0.9 T4 =.6 USGH 1.048, Ph 5.5 2+ bilirubin

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall is mildly thickened at 0.29 cm. There are numerous, mineralized irregularities in the dependent portion of the urinary bladder. This is most consistent with small stones or sand debris.

The prostate is normal in size (0.54 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.1 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.11 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.39 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

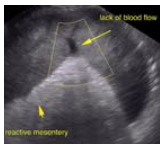
The right adrenal gland is normal in size measuring 0.44 cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

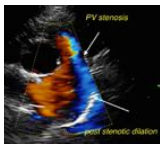
Spleen

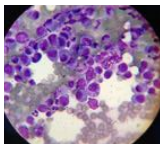
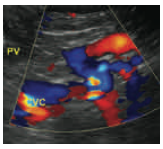
The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal/large in size with an overall increased echogenicity with irregular peripheral margins. The parenchyma is severely heterogenous with diffuse, small, hypoechoic nodules. The visible portions of the vasculature and biliary tract appear normal. The gallbladder lumen is





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moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal and the jejunum measured as normal (0.25 cm). Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Severely diffusely nodular liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Irregular, thickened urinary bladder wall with small, mineralized debris. The findings are most consistent with small stones/sand and cystitis. I recommend urinalysis and urine culture. Bladder neoplasia cannot be ruled out, but is considered unlikely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is very abnormal and consists of diffuse, small, hypoechoic nodules. This appearance can be consistent with classic honeycomb/swiss cheese appearance of hepatocutaneous syndrome, but it can also be seen with neoplastic change, etc. Moving forward consider:

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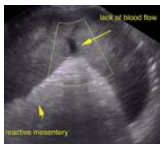
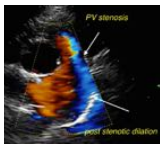
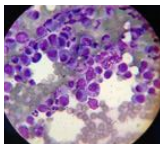
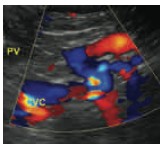

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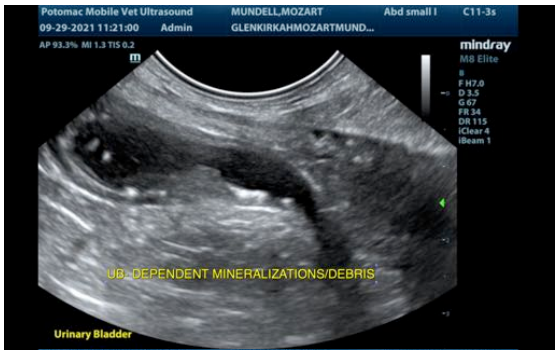
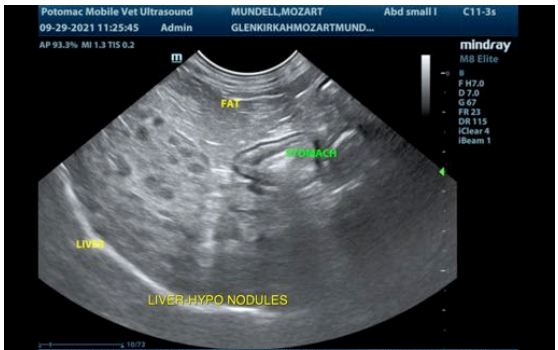
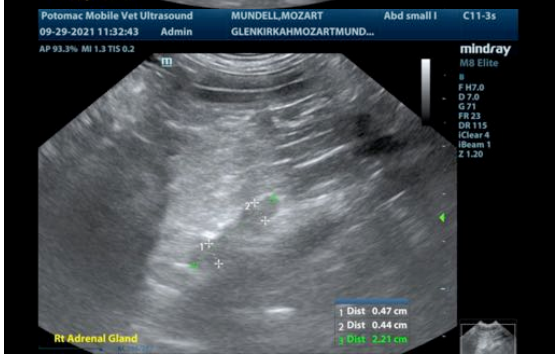
- Liver function test to further evaluate liver function.
- FNA of the liver to rule out obvious neoplastic change (as long as coagulation parameters are WNL).
- Definitive diagnosis will likely require both a biopsy of the liver and skin lesions. Additionally an amino acid profile looking for low levels can be helpful. If the patient is not stable enough for liver biopsy you can consider skin biopsy and amino acid profile to determine this, but you may miss a diagnosis of neoplasia.
- Recommend three view thoracic radiographs.







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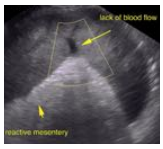
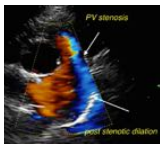
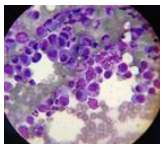
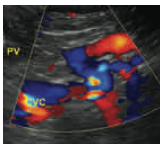

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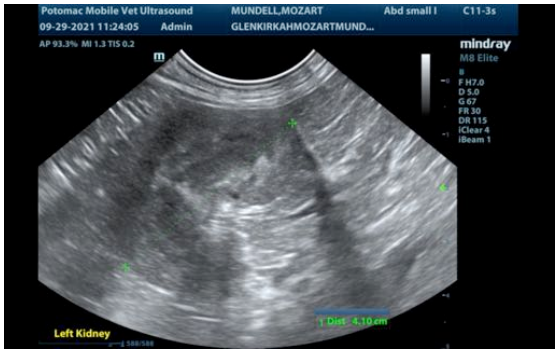

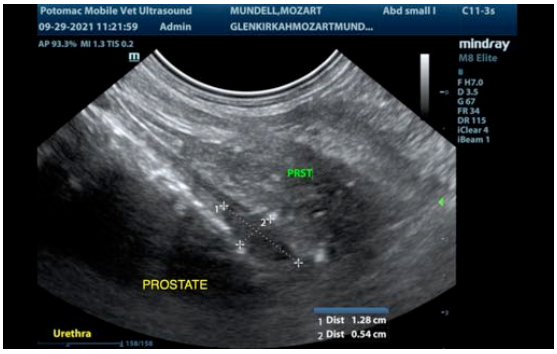

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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