

## PATIENT

## SPECIES

Canine

## BREED

Silky Terrier

## SEX

Neutered Male

## AGE

11 Years 6 Months

## WEIGHT

11.8 lbs

## INTERPRETED BY

DVM,  
DACVIM (SAIM)

## IMAGING PERFORMED BY

Dr. Wasserman

## HOSPITAL NAME

## REFERRING VET

## INVOICE

## DATE

## PRESENTING CLINICAL SIGNS

Sedated for sonogram with 0.05ml Dexdomitor 0.5mg/ml IV. Adequate. Presents for Elevated Liver enzymes.

Abnormal PE/Chem/CBC/UA Results: Elevated liver enzymes ALP 800, ALT 303. URSG 1.013

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder is moderately distended with anechoic urine. No uroliths are seen. The bladder wall is normal in appearance and thickness. No masses are seen.

The area of the prostate is examined without evident prostatic pathology measuring 7.9 mm width.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. The left kidney measures 4.1 cm. The right kidney measures 4.0 cm. The left kidney presents with 3.4 mm renal pelvic dilation possibly due to patient's chronic kidney disease or PU/PD caused by suspected hyperadrenocorticism, less likely pyelonephritis.

### Adrenal Glands

The left adrenal gland presents diffusely markedly enlarged with heteroechoic echotexture. The cranial pole measures 1.1 cm and the caudal pole measures 1.2 cm.

The right adrenal gland presents diffusely enlarged with a diffuse heteroechoic echotexture. The cranial pole measures 8.4 mm and the caudal pole measures 6.5 mm.

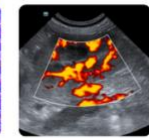
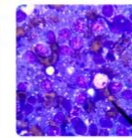
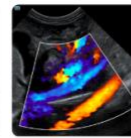
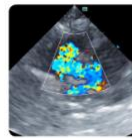
### Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal. Within the tail of the spleen, there is a hypoechoic non-capsule displacing lesion that measures 4.2 mm width, most likely benign extramedullary hematopoiesis, less likely neoplasia such as lymphoma or mast cell disease.

### Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion. This presentation is possibly due to pituitary dependent hyperadrenocorticism, less likely due to an infiltrative process such as lymphoma or less likely due to an infectious disease such as leptospirosis.

Within the gallbladder, there is a heteroechoic object present that measures 2.8 cm x 1.2 cm in size



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and on doppler exam appears to have blood flow present in multiple views. Blood flow is seen within this lesion within the gallbladder. This lesion may represent a mass within the gallbladder lumen which would be very unusual, however in this case given that there is blood flow, there is a distinct possibility. Within the gallbladder, there are also several hypoechoic choleliths present, measuring and found to be 3.4 mm x 4.7 mm in size.

### Gastrointestinal

The stomach and intestines have normal wall layering and thickness. Colon contains normal contents with normal wall thickness.

### Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### Free Abdomen

There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

The visible heart base (RA) and pericardium are unremarkable without obvious pathology noted in these images at this time. If cardiac function evaluation is desired, a full echocardiogram is recommended.

## ULTRASONOGRAPHIC FINDINGS

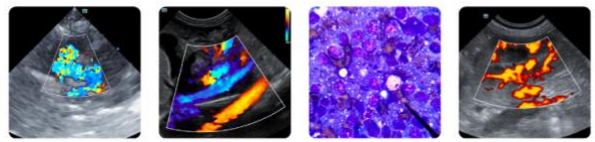
- Suspect gallbladder mass lesion with several choleliths.
- Age-related renal changes with mineralizations.
- Bilateral adrenal gland enlargement.
- Splenic lesion with splenic nodules.
- Pancreatic remodeling.
- Hyperechoic hepatomegaly.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommend ultrasound guided fine needle aspirate of gallbladder lesion with submission for cytology to assist in ruling out intraluminal gallbladder neoplasia. A neoplasia such as cholangiocarcinoma or a cholangiocystadenoma is possible. If cytology is inconclusive as to the etiology of this lesion within the gallbladder, recommend periodic monitoring via ultrasound to determine if this lesion is changing in size and appearance. If it does appear this lesion is enlarging over time, consider cholecystectomy and submitting gallbladder for histopathology.

Patient appears to have bilateral evidence of chronic kidney disease. Recommend full staging, monitoring and managing the patient per international renal interest society guidelines.

Given the bilateral adrenal gland enlargement, suspect patient may have pituitary dependent hyperadrenocorticism as the reason/part of the reason for the elevated liver values. Recommend performing a low-dose dexamethasone suppression test to screen for hyperadrenocorticism. Consider a urine culture if clinical signs of lower urinary tract disease are present.



## PATIENT

Can consider FNA of the splenic lesion with submission for cytology to characterize lesion further. Consider starting ursodiol and rechecking appearance of gallbladder lesions in six to eight weeks via ultrasound.

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INSIGHT M WASSERMAN DVM,  
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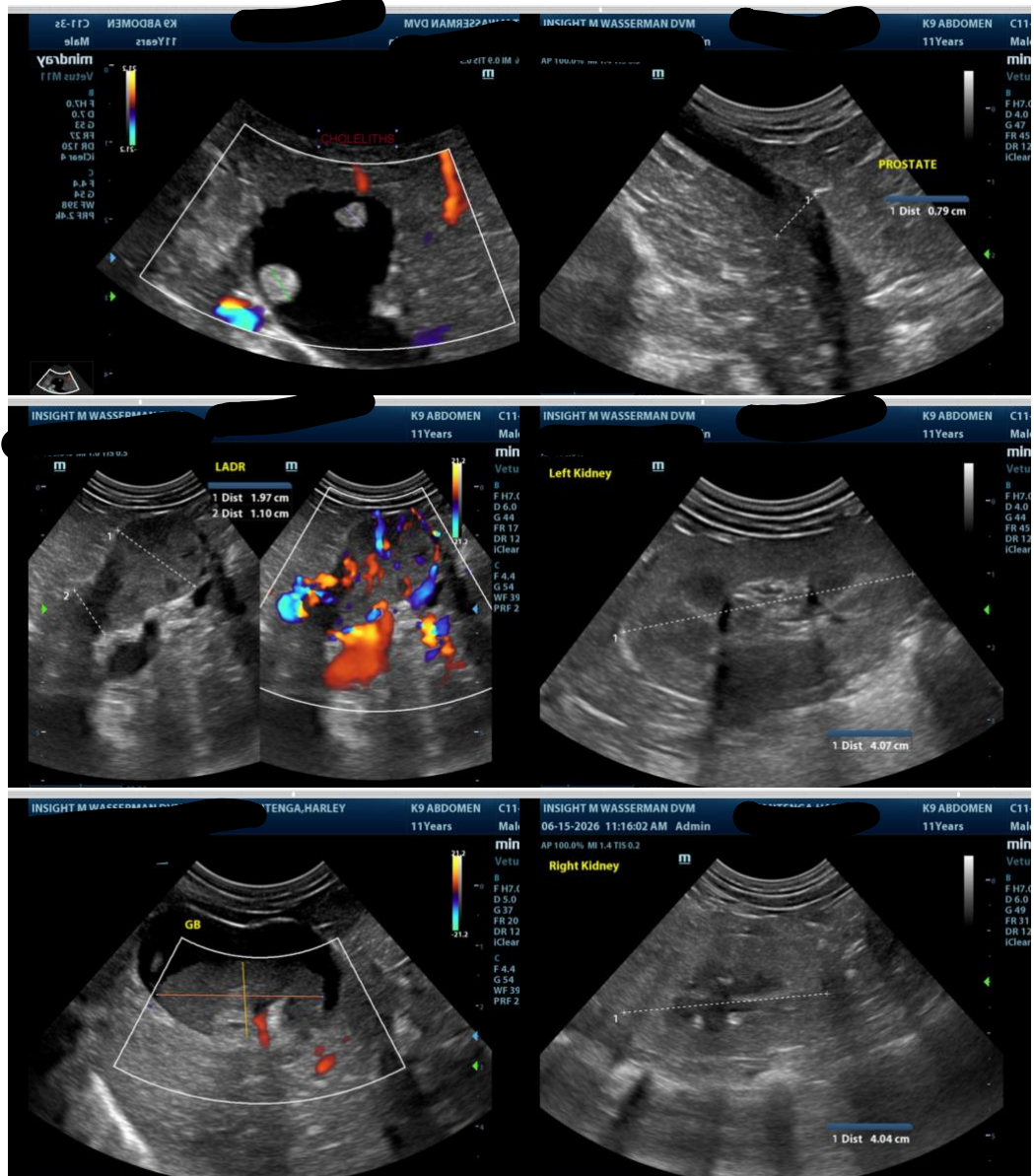
Dr. Wasserman

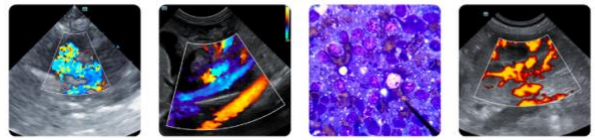
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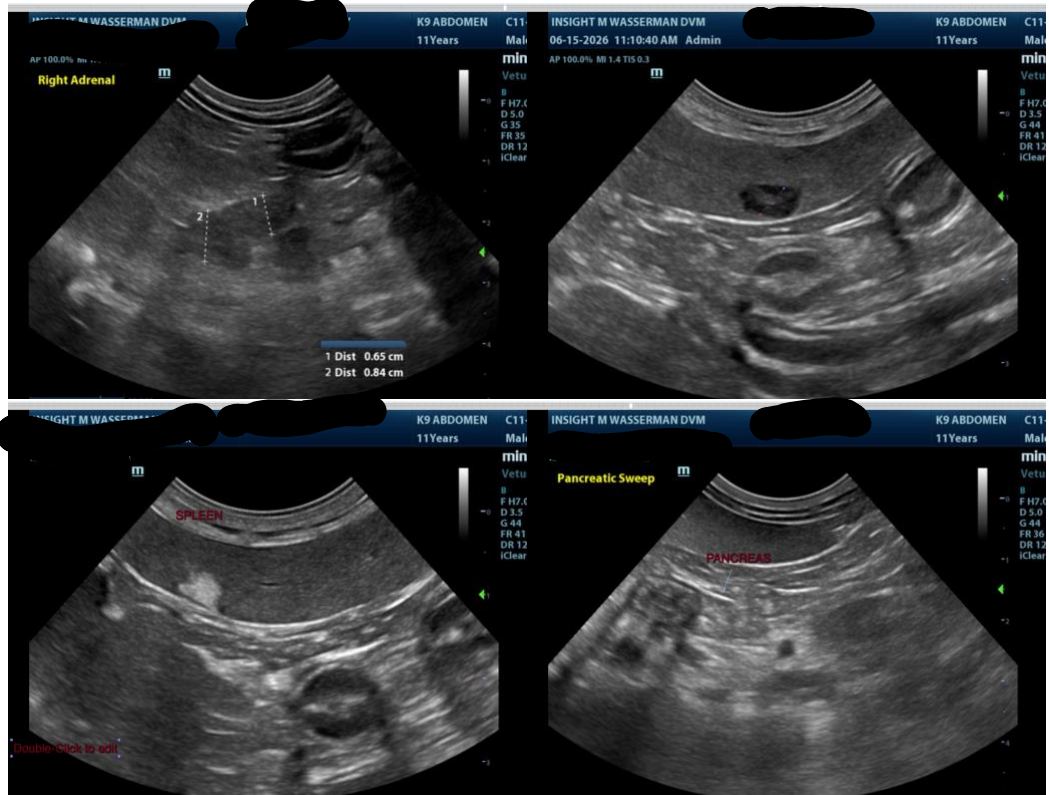
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

DVM, DACVIM (SAIM)  
Veterinary Internal Medicine Specialist  
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