



## PATIENT

Theory Kirk

## SPECIES

Canine

## BREED

Shih Tzu

## SEX

Neutered Male

## AGE

14.5 Years

## WEIGHT

14 lbs

## INTERPRETED BY

Greg Kuhlman, DVM,  
DACVIM (SAIM)

## IMAGING PERFORMED BY

Dr. Anthony Smatt

## HOSPITAL NAME

The Pets I Love

## REFERRING VET

Dr. Anthony Smatt

## INVOICE

73248

## DATE

2/25/26

## PRESENTING CLINICAL SIGNS

Patient has routine blood work which revealed elevated liver enzymes. Admitted today for abdominal ultrasound for further diagnostics.

Abnormal PE/Chem/CBC/UA Results: ALT - 127 ALP - 318

## 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 ureteral papillae were not seen.

The right kidney presents normal size (4.2 cm) with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis.

The left kidney presents normal size (3.6 cm) with normal shape and architecture. Normal corticomedullary distinction. No pyelectasia, ureteral dilation or nephrolithiasis.

### *Adrenal Glands*

The right adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 4.6 mm and the caudal pole measures 3.6 mm.

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 3.8 mm. The caudal pole measures 4.1 mm.

### *Spleen*

The spleen is normal in size, shape, margination and echogenicity. No masses are seen.

### *Liver*

The liver is diffusely enlarged with rounded margins and normal echogenicity. Multifocal variably sized, ill-defined, hyperechoic lesions are noted throughout the parenchyma. Two of the larger lesions measured 7.5 mm in diameter and 6.9 mm in diameter. Several of the smaller lesions were measured at approximately 3-4 mm in diameter.

The gallbladder presents normal size with anechoic contents. Normal gallbladder wall. No evidence of bile duct distention or obstruction.

### *Gastrointestinal*

The stomach contains a small amount of ingesta. The stomach wall diffusely appears to have normal thickness, measuring 2.3 mm in width, with normal layering. Diffusely, the small bowel has normal wall layering and thickness, measuring 2.9 mm in width. The duodenum is distended with a moderate amount of ingesta. Colon contains a large amount of formed stool. The colon wall appears diffusely normal in thickness and appearance.

### *Pancreas*

The visible pancreas is normal in size with normal echogenic parenchyma and surrounded by normal peri-pancreatic mesentery.



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## Free Abdomen

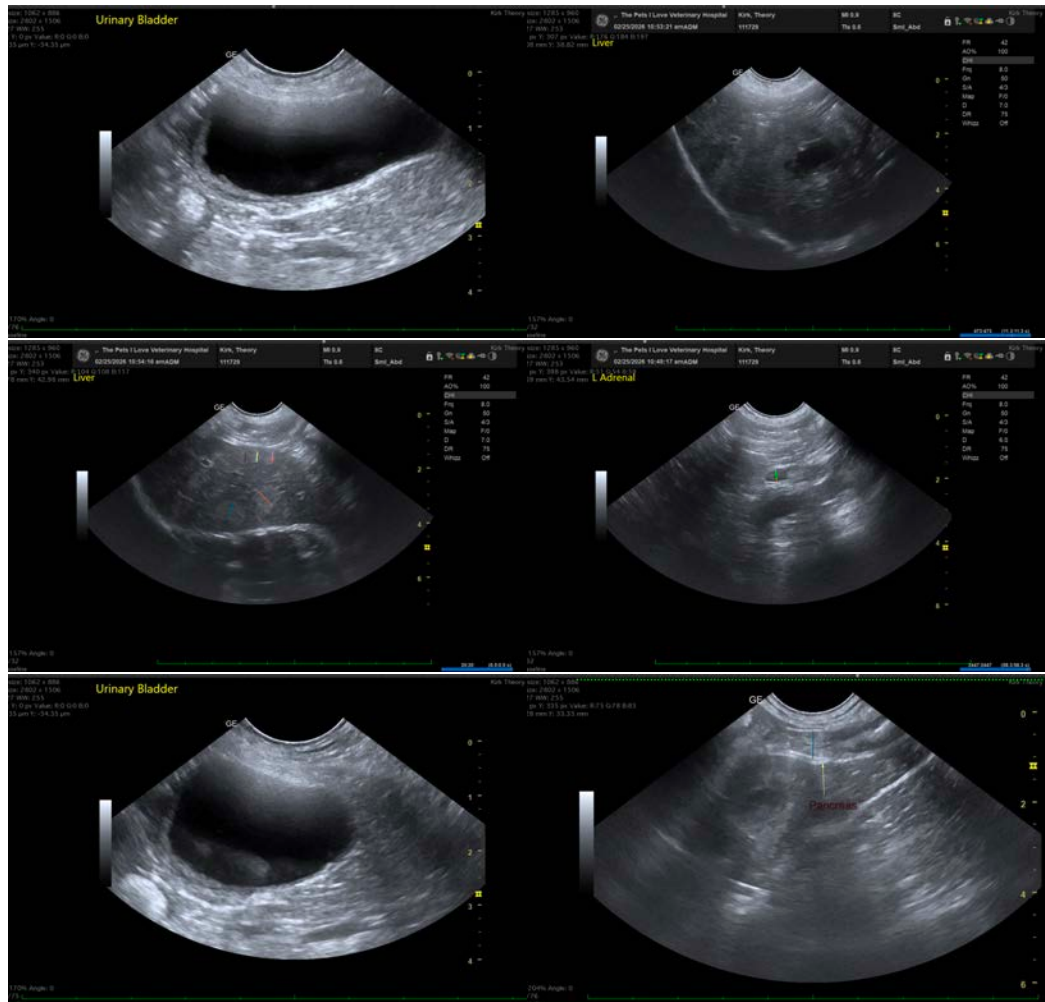
There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

## ULTRASONOGRAPHIC FINDINGS

- Multifocal hyperechoic lesions throughout the liver – Differentials include metastatic neoplasia (a primary tumor was not seen on this exam) versus round cell neoplasia such as lymphoma, mast cell disease, or possibly histiocytic sarcoma. A nodular form of hepatocellular carcinoma is also possible. It is less likely that these lesions are benign regenerative nodules.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommend ultrasound guided FNA of one or several of the lesions within the liver, submitting for cytology. If cytology is inconclusive as to the diagnosis, then consider liver biopsy. Recommend 3-view chest x-rays to screen the patient for the possibility of pulmonary metastatic disease. Prognosis is currently guarded pending results of liver aspirate cytology.





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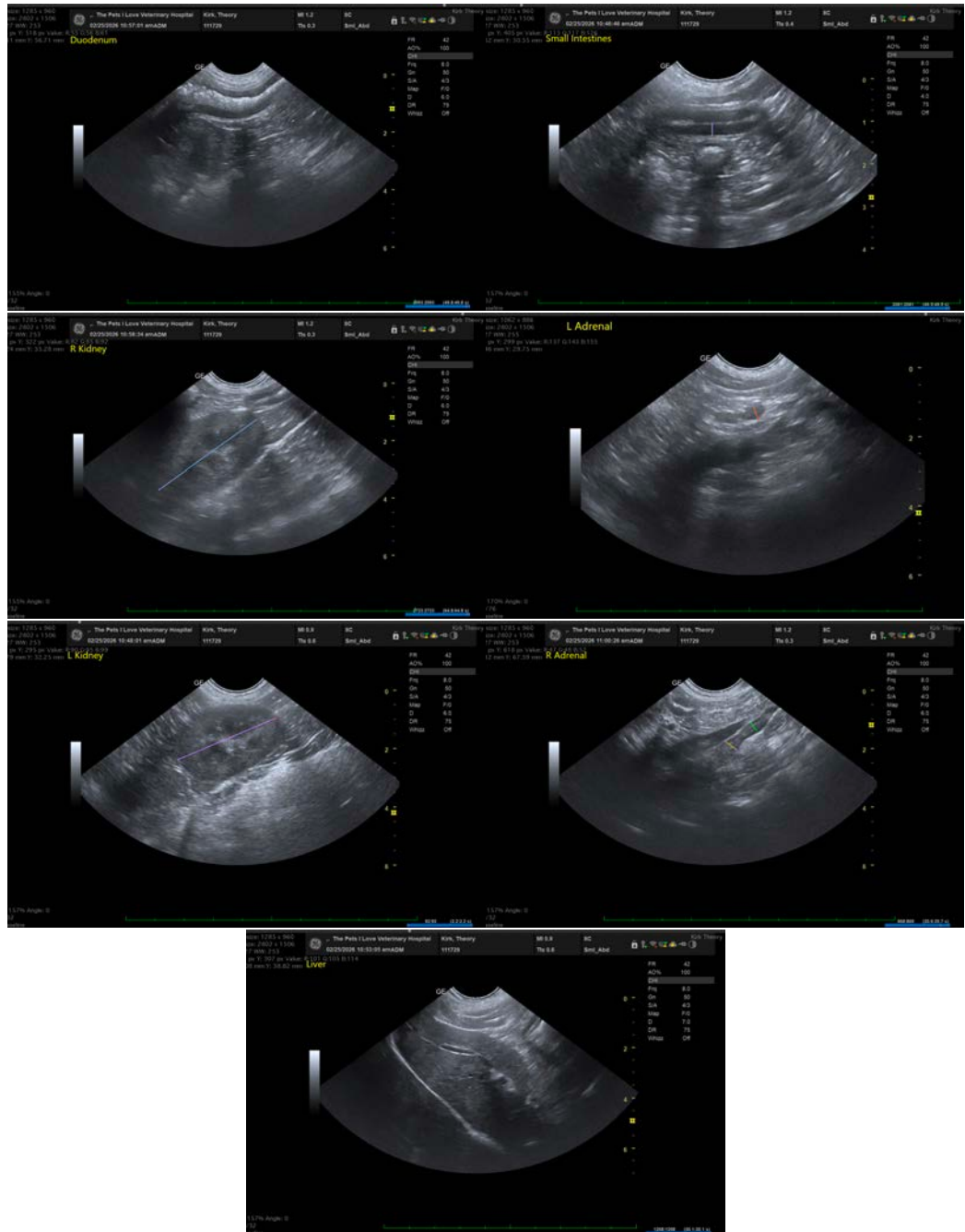
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Greg Kuhlman, DVM, DACVIM (SAIM)

Veterinary Internal Medicine Specialist  
[info@SonoPath.com](mailto:info@SonoPath.com)