



## PATIENT

Holly Smeltz

## SPECIES

Canine

## BREED

Chihuahua

## SEX

Intact Female

## AGE

8 Years

## WEIGHT

5 Pounds

## INTERPRETED BY

Kim Radway, DVM,  
DABVP (Canine/  
Feline)

## IMAGING PERFORMED BY

Amanda Hockenbrock

## HOSPITAL NAME

Lewisburg VH

## REFERRING VET

Dr. Meghan Facer

## INVOICE

35715

## DATE

2/6/26

## PRESENTING CLINICAL SIGNS

- Owner noticed decreased appetite Mid January 2026
- Thought it was teeth related, would eat bland diet
- Patient is an intact female, unsure when last heat cycle was
- Scheduled dental, Pre-anesthetic bloodwork showed elevated liver values.
- Abnormal PE/Chem/CBC/UA Results: Significant elevation of liver values on bloodwork. Significant elevation of bile acids. No obvious mass on radiographs

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The **urinary bladder**, trigone and pelvic urethra presented with normal wall thicknesses with anechoic urine and normal tone. No uroliths or masses were noted in the lumen of the bladder. No evidence of inflammatory or neoplastic changes were noted. The ureters were not visible and considered normal.

The **kidneys** revealed normal size, corticomedullary definition and ratio with the cortex being 1/3 of medulla. Medullary echogenicity differed distinctly from that of the cortex and no evidence of dilation could be seen. The renal pelvic diverticuli were distinct in character. The capsules were acceptably uniform without dramatic irregularities. The left kidney measured 3.64 cm. The right kidney measured 3.18 cm.

### Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were acceptable. The left adrenal gland measured 1.34 cm x 0.28 cm x 0.29 cm. The right adrenal gland measured 0.73 cm x 0.4 cm x 0.2 cm.

### Spleen

The **spleen** presented with a smooth homogeneous parenchyma hyperechoic to liver and kidney. The capsule was smooth and linear in its contour. The splenic vasculature demonstrated normal volume without signs of congestion, significant contraction, or thrombosis.

### Liver

The **liver** presented with a heterogenous appearance with multiple hypoechoic nodules noted throughout the hepatic parenchyma. The 3 most discrete nodules present measure 0.85 cm x 0.85 cm, 0.86 cm x 0.89 cm, and 2.6 cm x 1.8 cm in size.

The **gallbladder** presented with anechoic contents and a thin hyperechoic wall. The cystic and common bile ducts were normal. No periportal lymphadenopathy was evident.

### Gastrointestinal

The **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. There was a small amount of gas in the



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lumen of the stomach. No obstructive or overt infiltrative disease was noted. No abnormal lymphatic activity was noted, and the abdomen was free of gastrointestinal masses and pathological fluid.

## Pancreas

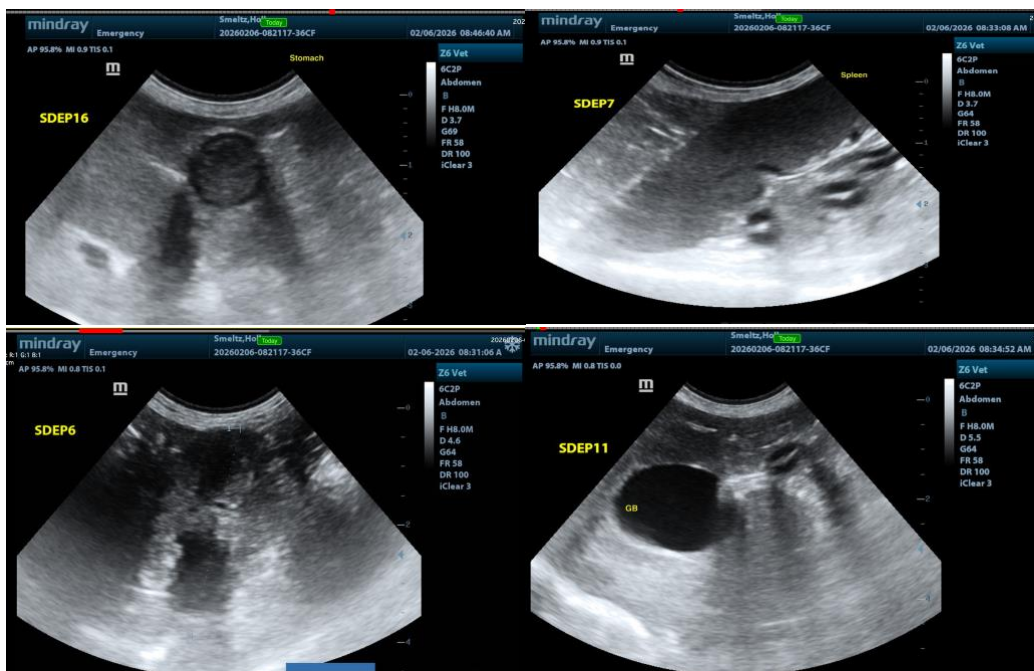
The right and left limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic capsular contour was acceptably normal. No overt evidence of active inflammatory or neoplastic disease was noted.

## ULTRASONOGRAPHIC FINDINGS

- The liver was heterogenous, containing multiple hypoechoic nodules throughout the liver parenchyma

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient was found to have a heterogenous appearing liver, containing multiple hypoechoic nodules. Despite the elevated pre- and post-bile acid results on blood work, the caudal vena cava and the aorta were found to be normal size in relation to each other, and therefore, a portosystemic shunt is considered to be unlikely but cannot be completely ruled out given the images provided. It is recommended to pursue a fine needle aspirate of the liver for a cytologic diagnosis to screen for underlying infiltrative neoplasia. An abdominal CT scan could be considered for additional information in order to more fully rule out the evidence of an underlying preexisting liver shunt. A liver biopsy may be required for a definitive diagnosis, if screening cytology is not diagnostic. Supportive care with denamarin should be provided in this patient.





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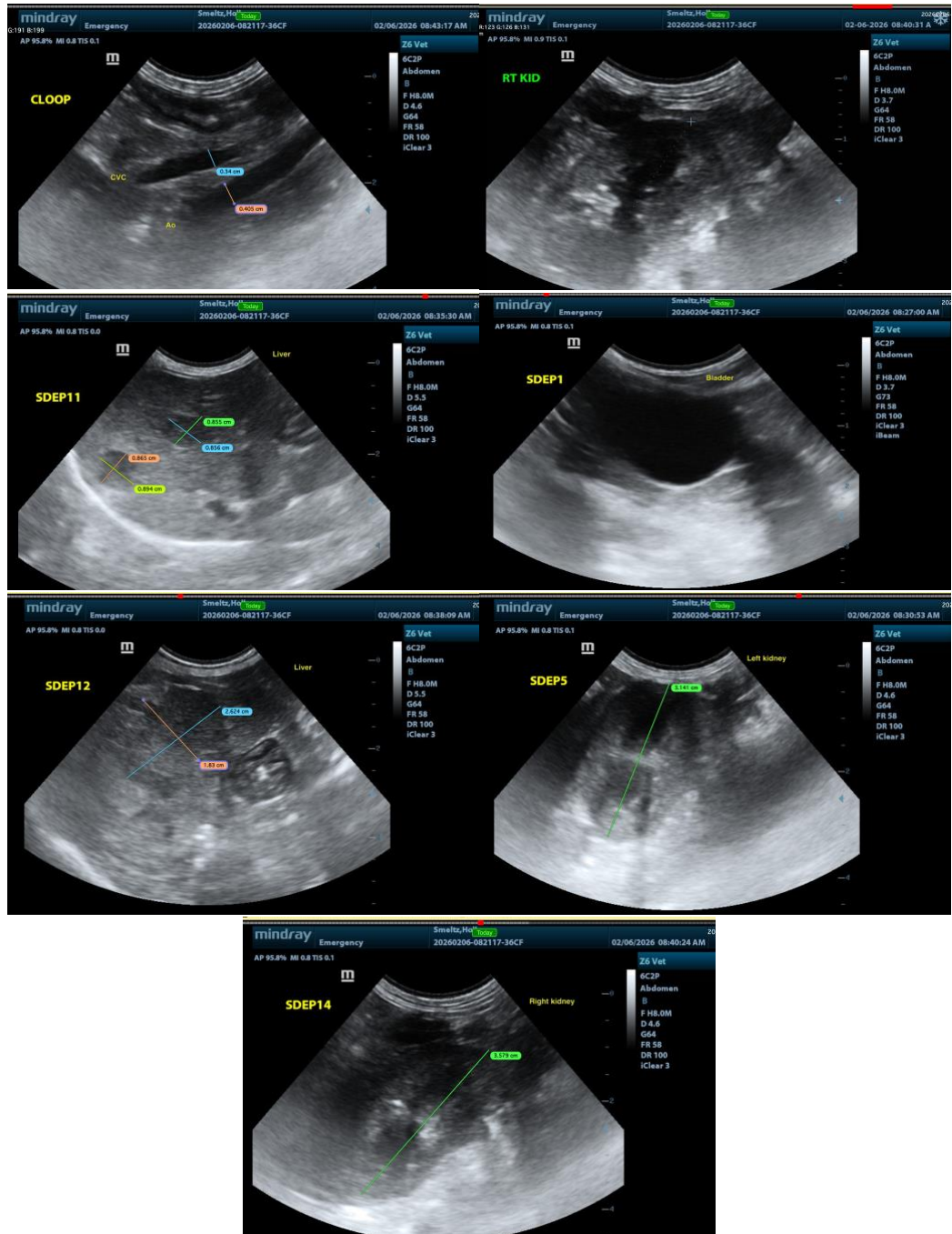
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



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Kim Radway, DVM, DABVP (Canine/ Feline)

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[info@SonoPath.com](mailto:info@SonoPath.com)

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