



## PATIENT

Joanne Angel Zerhusen

## SPECIES

Canine

## BREED

Bichon Poodle

## SEX

Spayed female

## AGE

5 years

## WEIGHT

27.6 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Dr. Jones

## HOSPITAL NAME

Northwind AH

## REFERRING VET

Dr. Jones

## INVOICE

73566

## DATE

3/18/26

## PRESENTING CLINICAL SIGNS

- History of elevated ALKP
- Weight gain
- ALP 1448 Bile Acids WNL

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder lumen is normally distended, and the wall appears thin and smooth. The urine is anechoic. The bladder neck and proximal urethra have a normal appearance. There are no calculi and no sonographic evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size, measuring 4.26×2.72 cm. Cortical thickness is 0.47 cm in the sagittal plane. The cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler shows a normal vascular pattern.

The right kidney is normal in shape and size, measuring 5.00×2.89 cm. Cortical thickness is 0.54 cm in the sagittal plane. The cortex is isoechoic relative to the hepatic parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler shows a normal vascular pattern.

### Adrenal Glands

Both adrenal glands show normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane are as follows: the left adrenal gland measures 0.45 cm at the cranial and caudal poles; the right adrenal gland measures 0.51 cm at the cranial and caudal poles.

### Spleen

Splenic thickness is 1.40 cm. The parenchyma demonstrates normal echogenicity and a fine homogeneous echotexture without focal abnormalities. The splenic capsule is smooth and regular. Splenic vasculature appears normal.

### Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The hepatic parenchyma is homogeneous and isoechoic relative to the falciform fat. A very subtle variation in echogenicity between hepatic lobes is noted on detailed evaluation. No hepatic lymphadenopathy is observed.

The gallbladder lumen is normally distended. The wall is thin. The lumen contains a moderate amount of biliary sludge, occupying approximately half of the gallbladder volume, without evidence of organization or structuring. There are no signs of mucosal glandular hyperplasia or gallbladder mucocele. No dilation of the cystic duct or common bile duct is observed.



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## *Gastrointestinal*

The stomach is empty and folded, with mild intraluminal gas. Wall thickness is 2.14 mm with preserved layering. The pylorus measures 6.46 mm.

Duodenum: 4.27 mm. Jejunum: 3.20–3.58 mm, with preserved wall layering. No signs of inflammation, ileus, or foreign material are identified.

Colon: 0.84 mm, with formed feces in the descending segment.

## *Pancreas*

The right pancreatic lobe measures 8.87 mm in thickness. The parenchyma is isoechoic relative to the adjacent omental fat. The evaluated pancreatic regions show no evidence of overt inflammation or focal lesions.

## *Peritoneal Cavity*

There is no sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly. The iliac trifurcation appears normal.

## ULTRASONOGRAPHIC FINDINGS

- Moderate, non-organized biliary sludge.
- Subtle heterogeneous hepatic echogenicity (mild, likely early vacuolar change).

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Adrenal glands are within normal size limits for a dog of this size. Dorsoventral measurements fall within accepted reference ranges (<0.6–0.7 cm depending on body weight), with preserved shape and symmetry. There is no ultrasonographic evidence of adrenal enlargement or nodular disease, making hyperadrenocorticism unlikely based on imaging alone.

The liver is subjectively normal in size and echotexture, although a very subtle, patchy variation in echogenicity between lobes is noted. In the context of markedly elevated ALP and weight gain, this finding is compatible with early or mild vacuolar hepatopathy, which may be steroid-induced or associated with endogenous hypercortisolism. The absence of marked hepatomegaly or diffuse hyperechogenicity suggests this process, if present, is at an early stage.

The gallbladder contains a moderate amount of non-organized biliary sludge. There are no features of mucocele formation, and no biliary duct dilation. This is most consistent with biliary stasis, commonly associated with metabolic or endocrine conditions, but not currently indicative of obstructive or surgical disease.

Recommendations



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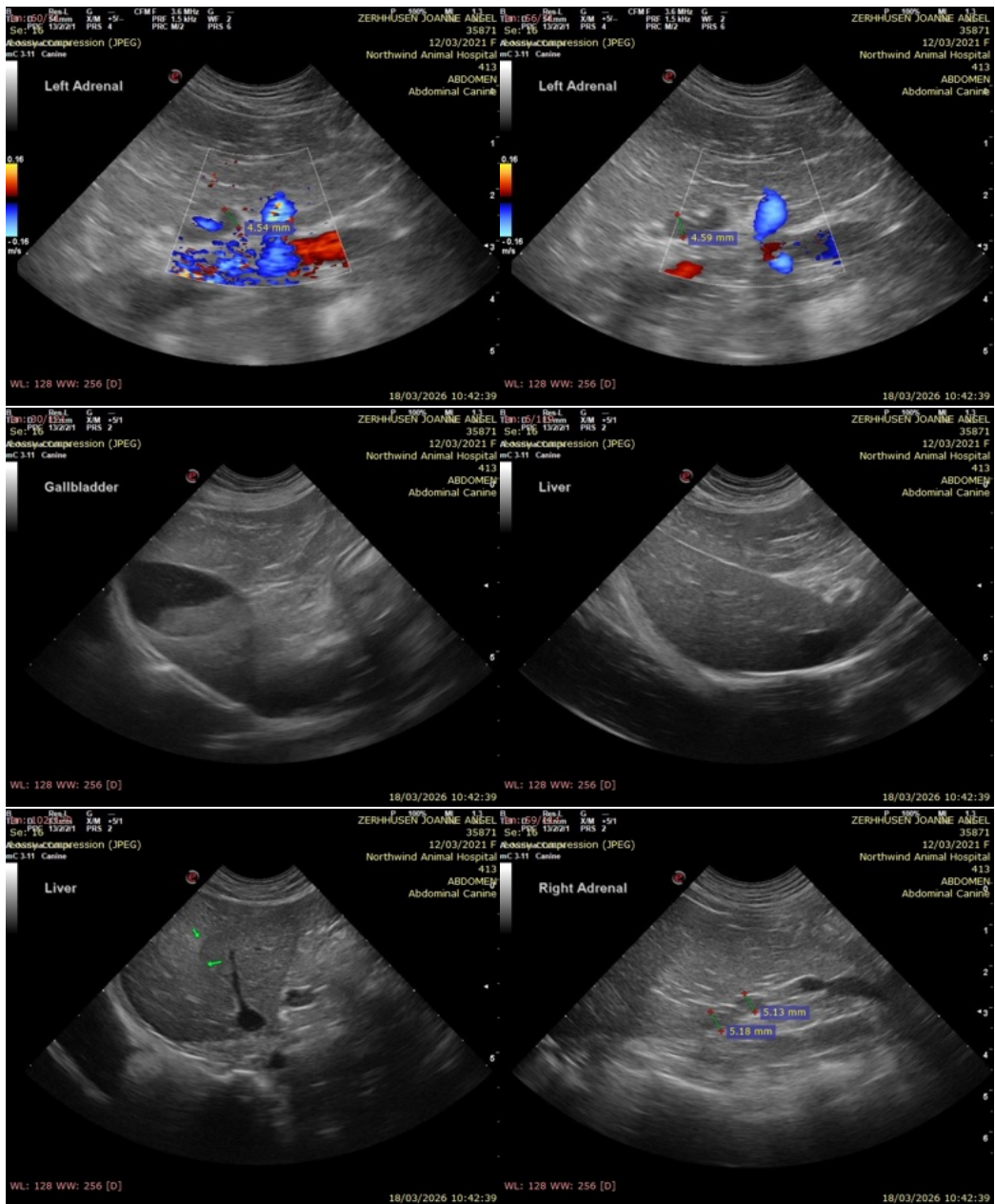
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- Correlate hepatic findings with liver enzymes and clinical context; changes are mild and likely metabolic in origin.
- Ultrasound cannot exclude functional disease; therefore, correlation with endocrine testing is recommended if hyperadrenocorticism is clinically suspected.
- Medical management with choleric or hepatoprotective agents (ursodiol) may be considered.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, based on the complete clinical context.





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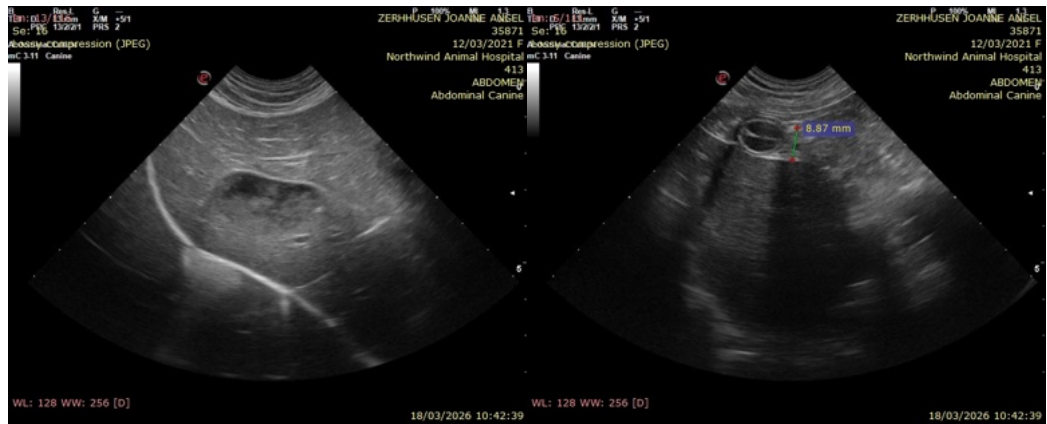
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

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