



PATIENT

Thor Van Waus

PRESENTING CLINICAL SIGNS

History of elevated liver enzymes on routine bloodwork. No clinical signs. Further fasted liver workup showed ALT 334, GGT 8, bile acids 68.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Havanese

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

SEX

Neutered male

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The kidneys measured 3.8 cm.

AGE

5 years

WEIGHT

6.2 lbs

Adrenal Glands

The **adrenal glands** were not visualized.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

IMAGING PERFORMED BY

Dr. Linscheid

HOSPITAL NAME

Family Pet VC

Liver

The **liver** revealed slight coarse architecture with mildly increased portal markings. The liver was fairly normal in size. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal.

REFERRING VET

Dr. Linscheid

Gastrointestinal

INVOICE

94928

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Retention of ingesta was noted in the stomach.

DATE

1/3/22



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Pancreas

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

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS

BREED

Havanese

Mild, non-specific inflammatory hepatopathy. There was no obvious portosystemic shunting. However, this cannot be complexly ruled out.

SEX

Neutered male

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

****In the future please send in DICOM format with video.

AGE

5 years

The interpretation is based on 28 still images. FNA of the liver is indicated to assess inflammatory cell type. A clinical trial of the following may prove effective from an empirical standpoint.

WEIGHT

6.2 lbs

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, Lactulose (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt** or **cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAME and nutraceuticals as needed. **Ursodiol** (10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

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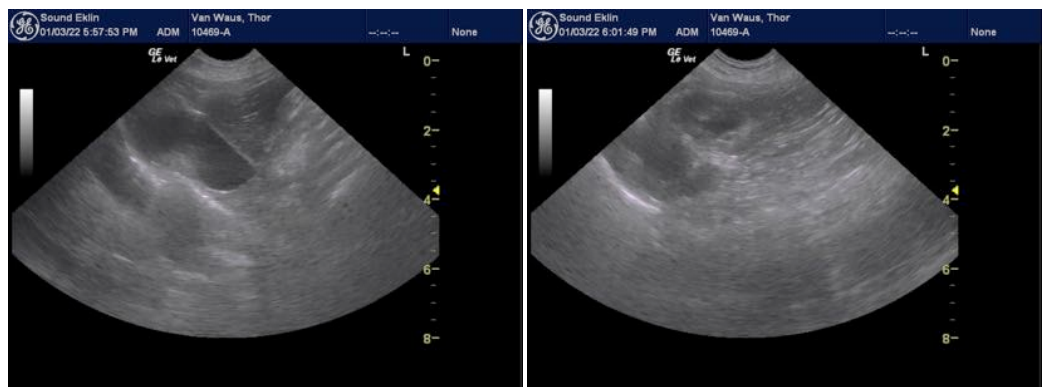
Dr. Linscheid

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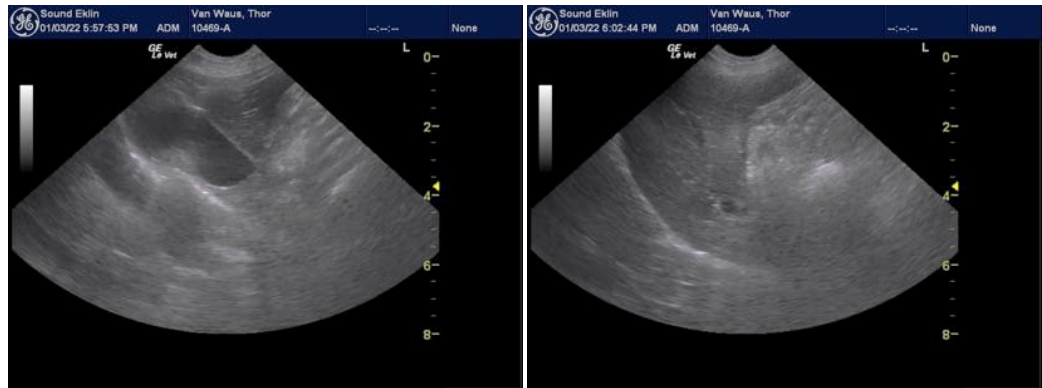
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SPECIES

Canine

BREED

Havanese



SEX

Neutered male

AGE

5 years

WEIGHT

6.2 lbs

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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