



## PATIENT

Levi Glitsch

## SPECIES

Canine

## BREED

Miniature Dachshund

## SEX

Neutered male

## AGE

13 years

## WEIGHT

19.9 lbs

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Nikki Kollman, RVT

## HOSPITAL NAME

Airpark AH

## REFERRING VET

Dr. Kennedy

## INVOICE

68712

## DATE

11/17/25

## PRESENTING CLINICAL SIGNS

History: Chronic liver enzyme elevations, starting with ALP in 09/2023; starting mild and increasing over time. Newest change is ALT has elevated, started 10/2025. Minimal response to denamarin, herbal liver supplement, ursodiol. Chronically on levothyroxine, intermittently uses prednisone for IVDD flares. Having trouble keeping appetite 100%, some days are better than others. Intermittent vomiting. Mild weight loss noted. No diarrhea, coughing/sneezing.

Abnormal PE/Chem/CBC/UA Results: Liver palpates slightly large. No bloodwork or testing run here, just ran at previous vet 11/5/2025: HCT 35% WBC 37k due to neutrophilia 33.8k Platelets 562k ALP unreadable on their machine ALT 382 U/L (10-125) GGT 28 U/L (0-11) T Bili 0.5 mg/dL (0-0.9) Albumin 3 g/dL Globulin 4.5 g/dL (2.5-4.5) Creatinine 1.2 mg/dL (has a history of being previously elevated once, returned to normal shortly after checking) BUN 54 mg/dL (7-27) Amylase/lipase WNL

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction and appeared normal. 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.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Moderate mineralization was noted with calculi measuring up to 0.4 cm. Cortical cyst was noted in both kidneys. The left kidney measured 4.5 cm. The right kidney measured 4.8 cm.

The residual **prostate** measured 1.6 cm.

### Adrenal Glands

The left **adrenal gland** was normal in contour with mild uniform enlargement. The left adrenal gland measured 2.16 x 1.04 cm at the cranial pole and 0.78 cm at the caudal pole. A right adrenal gland mass was noted and measured 2.8 x 1.9 cm with areas of cavitation and pericapsular inflammation. There was no obvious caval invasion noted, yet phrenic vein invasion was evident.

### 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.



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## Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. Occasional nodular change was noted and was non-disruptive. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

## Gastrointestinal

Examination of the **gastrointestinal tract** revealed an unremarkable stomach and small intestine regarding structure. There were minor areas of luminal fluid noted. There was no evidence of obstructive pattern. Curvilinear patterns were retained throughout the gastrointestinal tract. Areas of hyperperistalsis were noted. This is consistent with response to irritation. The colon was unremarkable.

## Pancreas

The **pancreas** revealed hyperechoic parenchymal changes with mixed, hypoechoic and hyperechoic parenchymal changes. This is suggestive for chronic pancreatitis, particularly in the right base.

## ULTRASONOGRAPHIC FINDINGS

- Moderate degenerative renal changes with calculi that was non-obstructive.
- Mineralized spleen, mild.
- Chronic active pancreatitis.
- Gastroenteritis.
- Nodular hyperplasia, vacuolar hepatopathy liver pattern, likely reactive hepatopathy given the pancreatic presentation.
- Right adrenal mass with cavitation and inflammation. Right adrenal carcinoma versus pheochromocytoma. Phrenic vein invasion.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

CT evaluation and right adrenalectomy is recommended with liver inspection and biopsy is indicated. Management for pancreatitis is warranted in the meantime.

Serial blood pressure measurements are recommended in this patient. If hypertension is an issue metanephrine level is recommended. If the patient appears Cushingoid and urine specific gravity is less than 1.020 then work-up for adrenal dependent Cushing's is indicated. Recheck is recommended in 2-3 weeks to assess for any progression of the adrenal gland.



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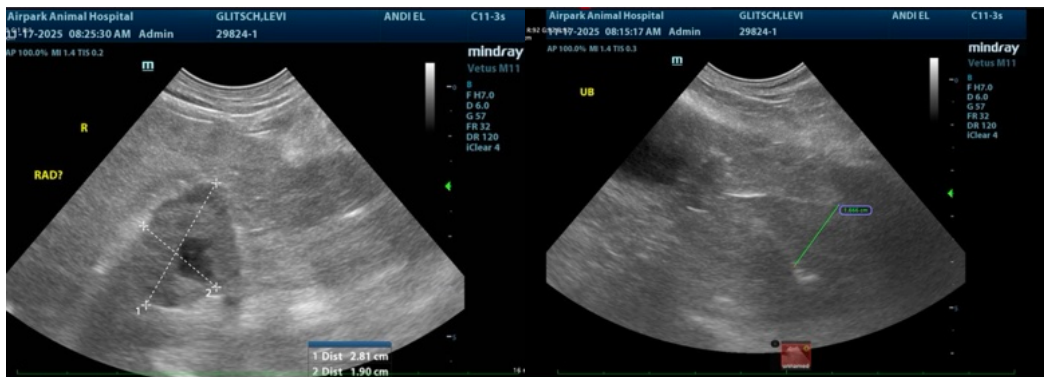
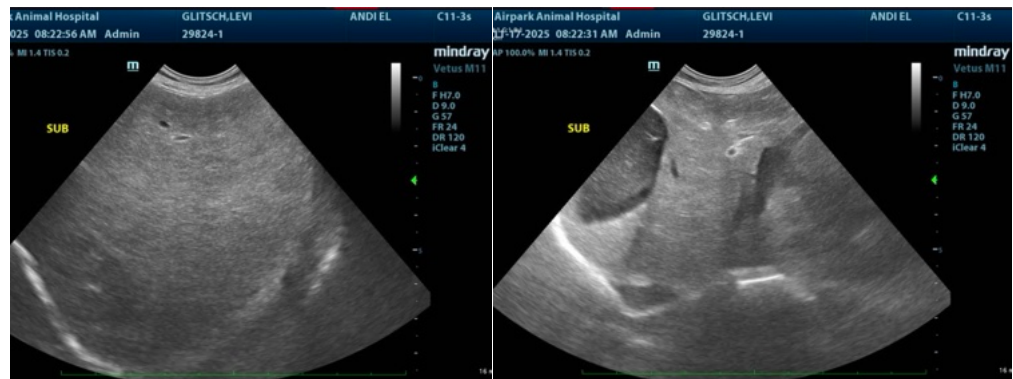
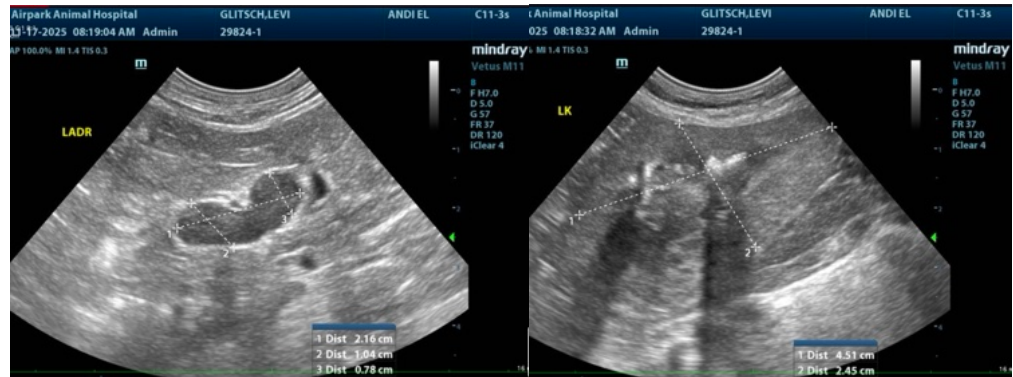
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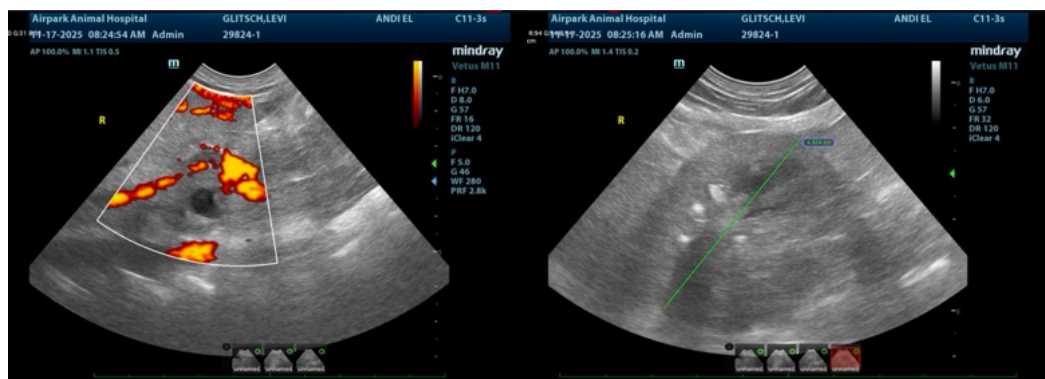
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

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