



**PATIENT**

Willow Sage  
Doerzbacher

**SPECIES**

Canine

**BREED**

Beagle Mix

**SEX**

Spayed female

**AGE**

12 years

**WEIGHT**

57.2 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

**IMAGING  
PERFORMED BY**

Dr. Lincoski

**HOSPITAL NAME**

University Drive VH

**REFERRING VET**

Dr. Lincoski

**INVOICE**

42957

**DATE**

2/24/23

**PRESENTING CLINICAL SIGNS**

History: T = 101.2 Patient presents for vomiting before breakfast and seeming restless/uncomfortable. Last night she kept popping up fast and pacing to plop in another spot. Did this over and over for an hour etc. Still eating/drinking normally etc. Dog has a known hx of chronic severe arthritis. Currently on gabapentin 100mg 2 capsules BID, carprofen 100mg 1/2 tablet BID, proin 50mg 1 tablet BID, dasuquin. Owner recently went to Blair Animal Hospital 2/9/23. They put her on omeprazole which resolved her vomiting! Gave the ok to stay on this indefinitely since helping. Cbc WNL Chem showed ALP > 2000, GGT 73. They discussed with owner that they think dog has cushings dx. We did a LDDS test 2021 and dog was negative. Did discuss that this can change between now and then. T4 = 0.6. They sent home thyroid meds to start, but owner has not started them yet. Did mention that historically dog's ALP has slowly increased over many years - it would seem there was a large increase since we last checked on 3/24/22 (1248) and GGT was 14. T4 was 1.1 then too. Can't r/o cushings (status could have changed), but also suspicious for something else going on in abdomen. U/A - free catch that owner brought today to compliment bloodwork at Blair. USG 1.032 PRotein 3+ UPC ratio: >2.4 which is significant proteinuria. PE: Pink mm, crt < 2 seconds. H/L auscult normally. Abdomen - always more of a potbelly feel, so can't r/o any abdominal masses etc from palpation only. PL: 1) Hard to know if restlessness from night was due to painful joints (arthritis hx) or something in abdomen causing discomfort etc. Since dog is on most of the available pain meds already, will STOP carprofen and start galliprant 60mg 1 tablet SID tomorrow am. (JM sent owner home with 3 weeks of free samples). Can continue if helping OR go back to rimadyl if no noticeable improvement. Hopefully this will help control pain better in joints, as well as spare liver etc. Continue gabapentin, dasuquin as previously rx'd. 2) Due to GGT and ALP levels going up dramatically - recommend GI u/s to further assess organs and to r/o any neoplasia etc. Will send estimate and owner scheduled appt next Friday for u/s to get further information. 3) Discussed that if dog has something else going on - thyroid can be euthyroid sick and falsely low. In her complex case, would opt to send out MSU panel for confirmation prior to starting thyroid drugs. Owner elects to wait on both ends and see what ultrasound report shows first. 4) Cushings - can always retest LDDS in the future - but think less likely at this point, and will see what u/s report says first. Protein in urine can be from many things, but cushings is one of them. Can't r/o glomerulonephritis etc. Albumin level was normal on bloodwork. Abnormal PE/Chem/CBC/UA Results: Pendulous abdomen. Proteinuria, elevations of ALP, GGT (see records attached).

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder** revealed a minimal amount of urine present and collapse with polypoid changes.

The uterine stump measured 0.5 cm.

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 his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 5.94 cm. The right kidney measured 6.45 cm with pinpoint mineralization and minor cortical cysts. A 1.6 cm cyst at the cranial cortex of the right kidney.

**Adrenal Glands**

The caudal pole of the left **adrenal gland** revealed minor enlargement at 1.22 cm with uniform swelling. The left adrenal gland measured 2.3 x 0.64 cm. The right adrenal gland was visualized obliquely and was unremarkable.



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**Spleen**

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

**Liver**

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Anechoic cysts were noted in the caudate process of the liver. The media liver revealed an echogenic nodule that measured 3.37 cm with mild disruption of architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. Echogenic remodeling was noted with echogenic remodeling and occasional cyst. Minor excessive GB debris was noted without over distension. Minor gallbladder polyps were noted.

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Minor retention of ingesta was noted in the stomach. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

**Pancreas**

The **pancreas** was heterogenous, irregular and swollen with remodeling primarily in the right limb. This is consistent with hyperplasia. However, subxiphoid palpation is warranted to assess for discomfort.

**Free Abdomen**

A large amount of abdominal fat was noted. Intraabdominal lipomas were noted in the caudal abdomen deviating the gallbladder.

**ULTRASONOGRAPHIC FINDINGS**

Minor polypoid bladder.

Chronic renal changes with cortical cysts. Moderate, non-specific remodeling.

Vacuolar hepatopathy liver pattern with cysts and 3.2 cm nodule, possible carcinoma.



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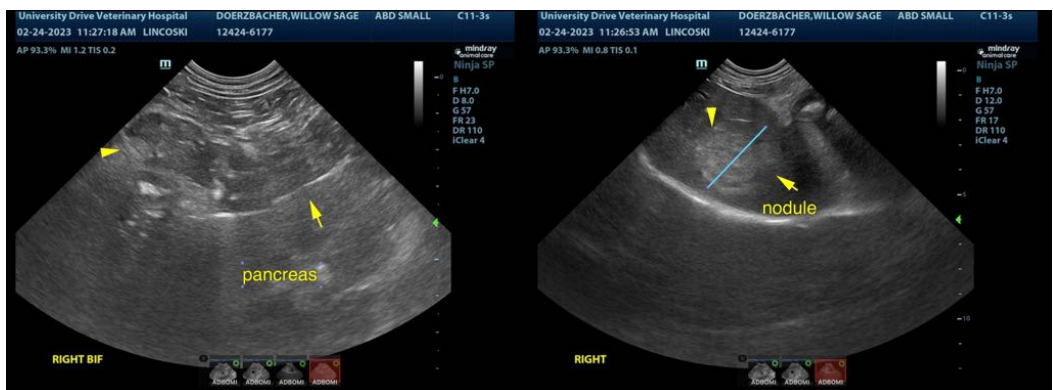
Irregular left adrenal. Hyperplasia is likely. Pheochromocytoma and adenocarcinoma is possible.

Irregular right pancreatic limb, possible low grade inflammation.

Intraabdominal lipomas.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

25-gauge FNA of the liver nodule would be ideal. Blood pressure measurements are warranted if not already performed. Given that urine specific gravity is well concentrated, transitional Cushing's is unlikely; however, atypical Cushing's is possible. Full adrenal panel to University of Tennessee is indicated.





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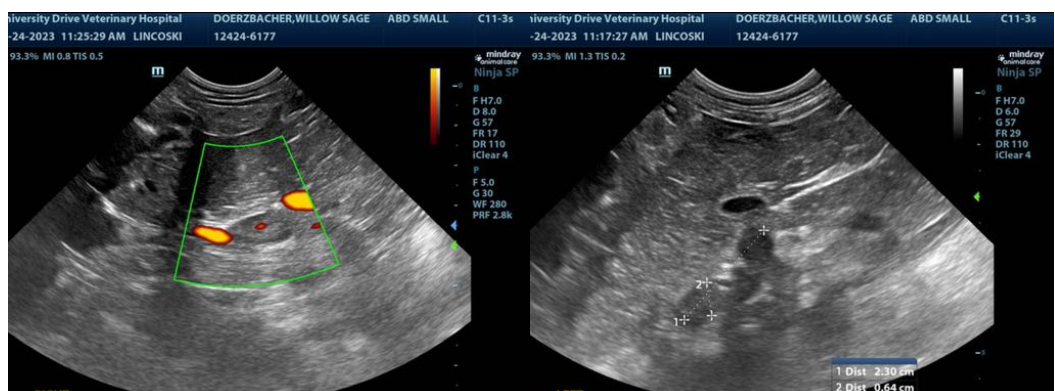
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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