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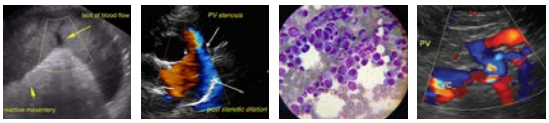

imagine SOUND LLC.
IMAGING PERFORMED BY
dbimaginesound@gmail.com 917-647-4318

PATIENT

Lily Winoccour

SPECIES

Canine

BREED

Dachshund

SEX

Spayed Female

AGE

2007

WEIGHT

17.52 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert IVUSS

IMAGING PERFORMED BY

Denise Bruno, LVT, RDMS

HOSPITAL NAME

Brooklyn Heights VH

REFERRING VET

Dr. Thomson

INVOICE

37934

DATE

5/24/22

PRESENTING CLINICAL SIGNS

Increased Ca2+/liver enzymes Evaluate for hyper-parathyroid vs neoplasia. Calcium 12.3, Total Protein 8.1. Alb 4.9, Glob 4.1, ALT 201, ALP 309.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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 were noted. Ureteral papillae were normal. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

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. Trace pyelectasia noted. Multifocal cortical cysts noted, not pathological. The right kidney measured 5.35 cm. The left kidney measured 5.25 cm.

Adrenal Glands

Enlarged, irregular, nodular **right adrenal gland** noted. A nodule measured 3.1 cm x 1.84 cm. The right adrenal gland measured 3.88 cm x 1.97 cm at the cranial pole and 0.51 cm at the caudal pole.

The **left adrenal gland** was also irregularly enlarged with a cranial swelling at 1.27 cm, 0.62 cm at the caudal pole, and 2.73 cm in length.

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 were noted.

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. 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. Occasional hypoechoic nodular changes noted in the liver.

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. 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.

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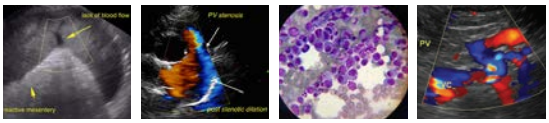

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Pancreas

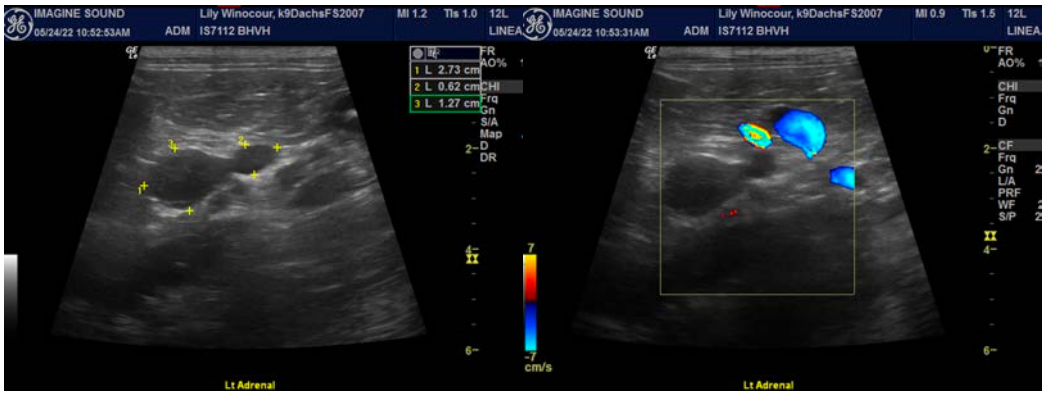
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

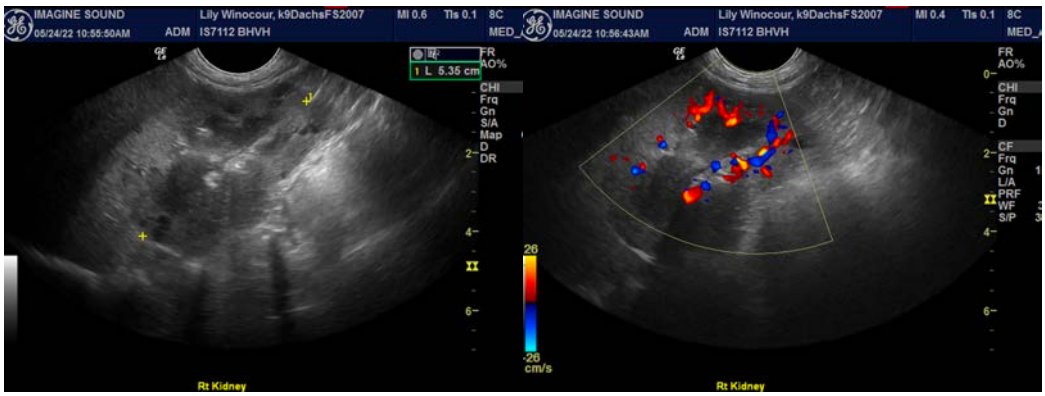
ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenal nodules and swelling
- Moderate degenerative renal changes with cortical cysts
- Benign hepatopathy with remodeling

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An argument could be made for bilateral adrenal adenomas, hyperplasia, pheochromocytomas, mild potential for carcinoma. Full adrenal workup warranted in this patient. If USG is <1.020, then workup for Cushing's indicated. No evidence of primary abdominal disease to be responsible for the hypercalcemia. If hypercalcemia suggests potential hyperparathyroidism, then sonogram of the thyroids/parathyroids would be indicated. Blood pressure measurements warranted. Neither adrenal demonstrates vascular invasion or capsular escape. FNA of the liver would be ideal, given the nodular changes. However, the changes were most consistent with nodular hyperplasia and vacuolar hepatopathy.





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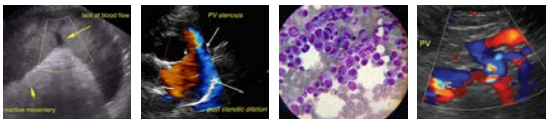

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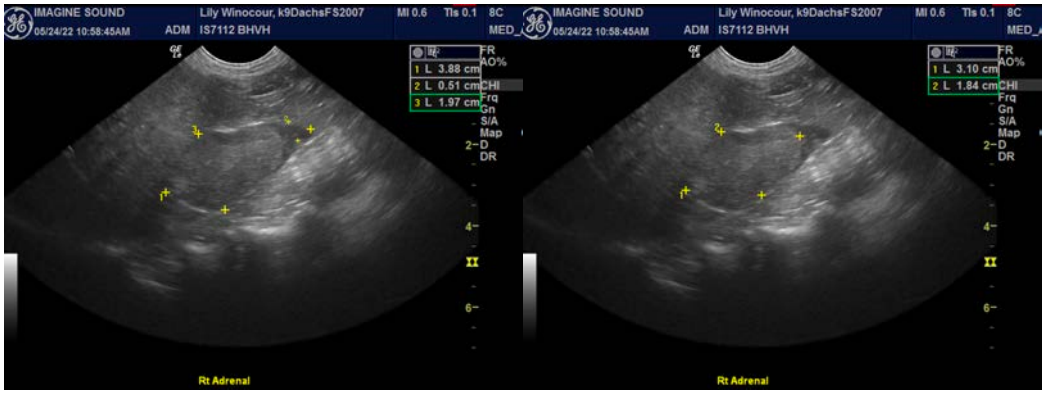

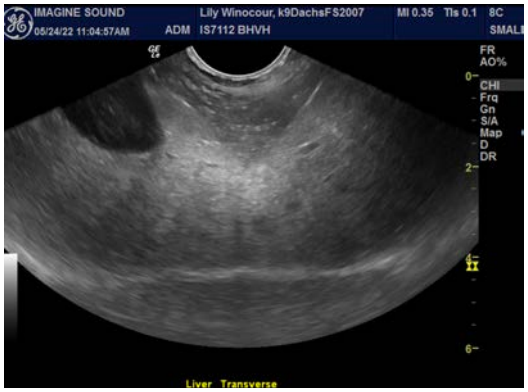

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com