

**DATE**

2/14/22

PRESENTING CLINICAL SIGNS

Diabetic since prior to 2018. History of chronic ALKP elevations. Previous ultrasound showed benign hepatopathy and liver mass but otherwise unremarkable. Recently decently managed on 10 units Novolin-N BID but pet has intermittent hyporexia. Responds favorably to pepcid, cerenia and mirtazapine to boost appetite but today not eating and lethargic.

PATIENT

Molly Lebon

Current Medications: Cerenia 15mg EOD for several months. Pepcid 5mg SID to BID for several months. Mirtazapine 3.25mg PO SID PRN for several months. Novolin-N 10 units BID >2018.

SPECIES

Canine

Lab Results: 2/14/22 ALKP 4333, glu 274, chol 340, BUN 45, GGT 45, glob 4.8, U/A pending
11/30/21: ALKP 3522, glu 726, chol 358, BUN 46, GGT 35, PSL 255, USG 1.027, pro 2+, glu 3+ 5/15/21: ALKP 1740, glu 480, chol 450, BUN 46, GGT 20, PSL 224, USG 1.046, pro 3+, glu 3+.

Date of Previous IntraPet Ultrasound: 1/13/20. 3/7/19. 4/9/18.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Schnauzer Mix

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

Urinary bladder is moderately distended with anechoic contents. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.

AGE

3/17/09

Left kidney is normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

WEIGHT

Right kidney is normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

Left adrenal gland is normal in size (2.27 cm long x 0.74 cm at cranial pole and 0.85 cm at caudal pole), shape and contour. There is focal mineralization observed without capsular distortion. Corticomedullary structure is unremarkable.

HOSPITAL NAME

Everhart VH

Right adrenal gland is normal in size (1.79 cm long x 0.79 at cranial pole and 0.85 cm at caudal pole), shape and contour. There is focal mineralization observed without capsular distortion. Corticomedullary structure is unremarkable.

REFERRING VET

Dr. Notorangelo

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

INVOICE

96053

Liver

Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. In the right liver there is a 5.7 x 7.0 cm mixed, hyperechoic, partially cavitated mass. A second, similar appearing mass is deeper in the liver near the gallbladder and measures 3.7 x 4.25 cm. Visible vasculature and biliary tree appear normal without distension or congestion.

GB is moderately distended with anechoic bile and gravity dependent echogenic sediment. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation

Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty.

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas

Pancreas has normal homogenous echotexture and smooth margination. However, there is mild age related remodeling of the parenchyma. There is no evidence of peripancreatic inflammation.

Free Abdomen

Lymph nodes are normal with no observed enlargement.

ULTRASONOGRAPHIC FINDINGS

Hyperechoic hepatomegaly canine – most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely. Several, at least two, mixed, hyperechoic partially cavitated liver nodules. This is most concerning for infiltrative neoplasia such as primary hepatocellular carcinoma versus less likely sarcoma or metastatic neoplasia. Benign differentials are possible, yet considered less likely given the loss of normal curvilinear architecture within the masses and progression in size and number since the previous ultrasound.

Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.

Non-obstructive dystrophic mineralization.

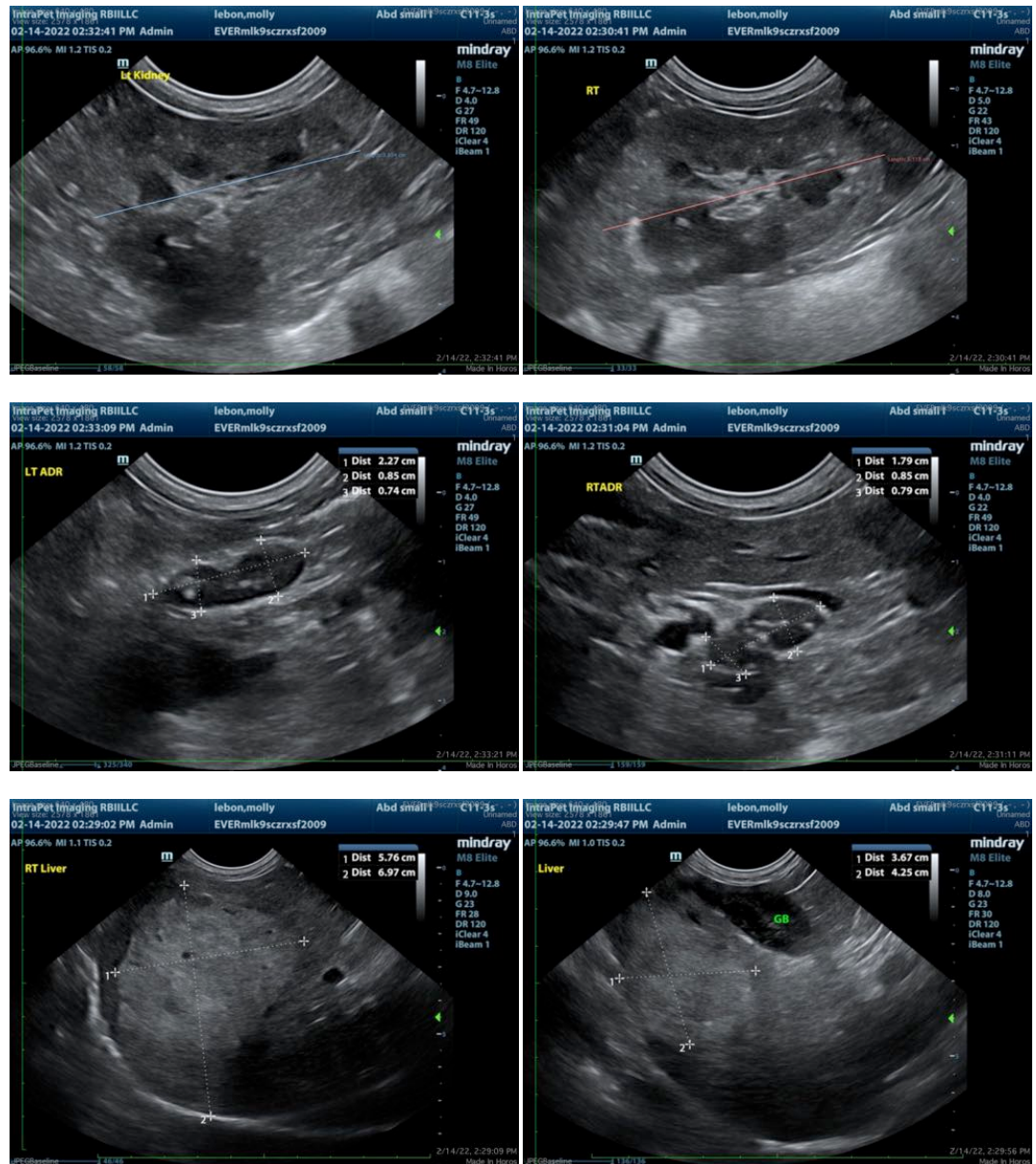
Age related pancreatic remodeling.

Static mineral within the adrenal glands bilaterally.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations include FNA of the liver mass/masses if not previously performed and if patient's coagulation status is appropriate. If a diagnosis cannot be obtained cytologically a surgical excisional mass removal/biopsy may be necessary to diagnose the underlying disease and manage it therefore improving clinical signs.

The other findings are considered primarily less clinical aging variants and likely not a contributing factor to this patient's clinical signs. If not recently performed three view thoracic radiographs are also recommended to further assess cardiopulmonary status and look for evidence of metastatic disease.



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.

Beth Johnson, DVM DACVIM

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