



PATIENT

Zoey Meyer

SPECIES

Canine

BREED

Havanese

SEX

Spayed Female

AGE

11 Years

WEIGHT

16.6 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

East Plane AH

REFERRING VET

Dr. Rosen

INVOICE

23418

DATE

7/17/23

PRESENTING CLINICAL SIGNS

Progressively elevating ALKP; no PU/PD; polyphagia.
Abnormal PE/Chem/CBC/UA Results: 5/1/23: ALKP 900 7/1/23: ALKP 1360

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 **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. Mineralization was noted in the kidneys. The right kidney measured 4.52 cm. The left kidney measured 4.52 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.77 cm x 0.67 cm at the caudal pole and 0.48 cm at the cranial pole. The right adrenal gland measured 1.66 cm x 1.45 cm at the cranial pole and 0.61 cm at the caudal pole.

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, minor sand and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. Gallbladder polyps were noted. The common bile duct was normal at 2.0 mm. 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. Subtle micronodular changes were also noted in the liver.

Gastrointestinal



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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.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

- Subjectively benign vacuolar hepatopathy with some remodeling
- Gallbladder debris and polyps
- Age-related renal changes with mineralization, nonobstructive.
- Age-related pancreatic changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid profile could be considered. If bile acids are elevated, then liver-oriented diet is indicated. Nutraceuticals could be considered. FNA of the liver could be considered for further definition. Ursodiol could be justified over the next 6-8 weeks and reassessment of the gallbladder to ensure adequate emptying, however, this is not likely a clinical issue at this time. This would be preventative only.



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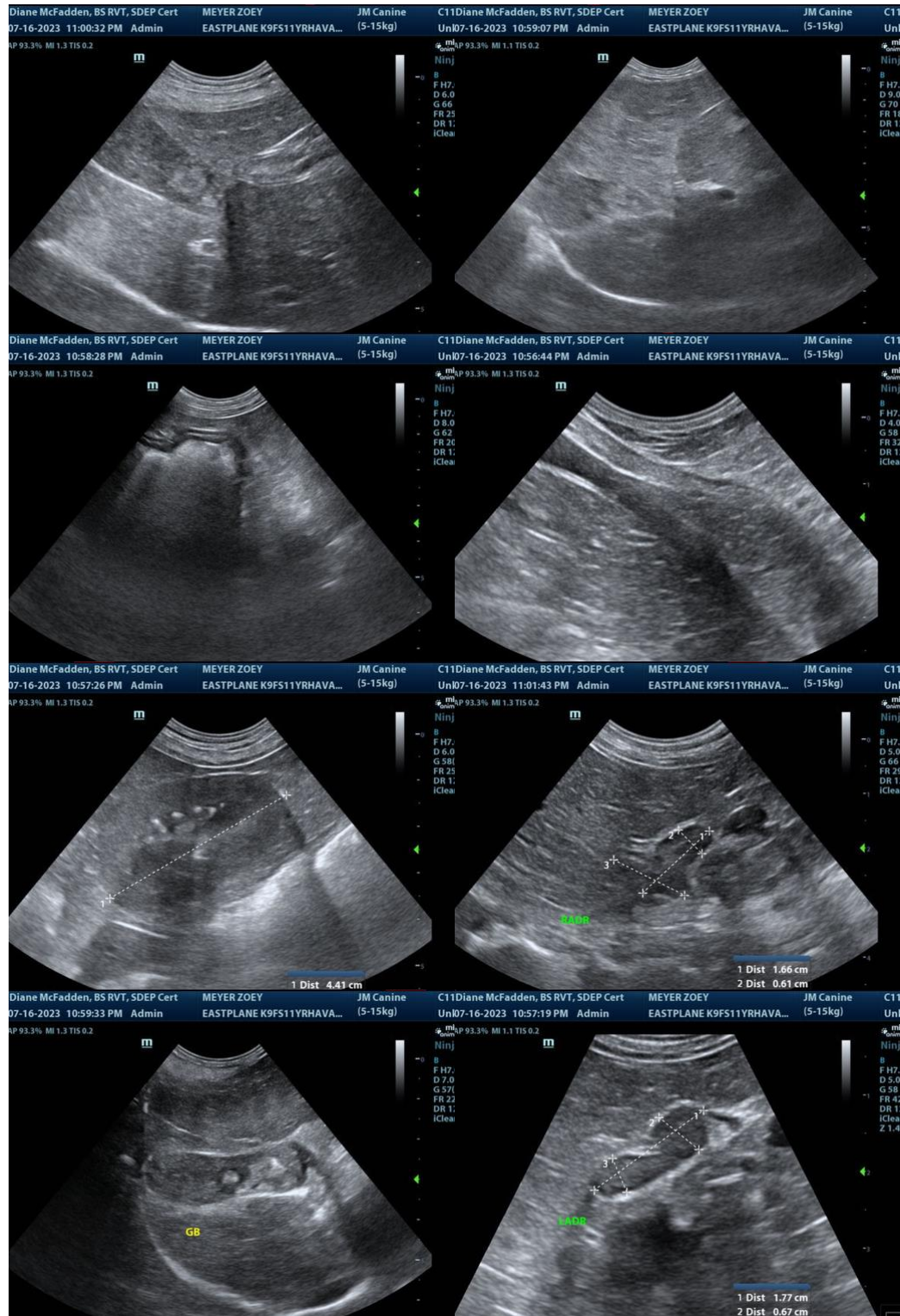
Dr. Rosen

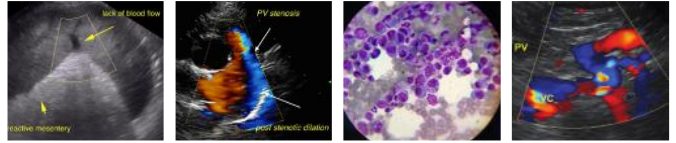
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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info@SonoPath.com

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