

**PATIENT**

Luka Morgan

SPECIES

Canine

BREED

Husky

SEX

MN

AGE

12 years

WEIGHT

56 lbs.

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP (Canine
and Feline)**IMAGING
PERFORMED BY**

Sarah Pender, CVT

HOSPITAL NAMESVS Imaging
Michigan**REFERRING VET**

Family Pet Practice

INVOICE

13832

DATE

5/10/22

PRESENTING CLINICAL SIGNS

Current Medications: Denamarin Ig 1 tab PO SID long-term Ursodiol 250mg 1.5 tab PO SID long-term
 Patient History: Chronic hepatopathy, liver mass resected Jan 2022 (carcinoma) Recent hx of coughing
 - see radiology report below

Abnormal PE/Chem/CBC/UA Results: Recent exam 1. BAR 3. OS- irregular sclera lining dorsolateral limbus- has always been like that per O 4. Excessive brown debris with hair contained in waxy debris- no significant erythema, recommend routine ear cleaning 5. NE- basket muzzle placed for exam 6/7. Increased bronchovesicular lung sounds, no audible heart murmur. 9/10. Tense on abdominal palpation- hx of hepatocellular carcinoma, liver lobectomy performed in Feb 2022 at OVRS. 12. Mild muscle atrophy over rear limbs, Decreased ROM In both hips, thickened stifles bilaterally. Bloodwork Review: CBC- increased Hgb, increased neut on diff, absolutes WNL Chemistry- Tg>500 (not fasted), ALP >993 (prev 1283), Tbili 1.2 (prev 0.2), GGT 21- rule-out hepatopathy/cholangitis vs secondary to sample hemolysis- recommend rechecking in 1 month. In meantime recommend AUS to evaluate liver further Thoracic radiograph Review- Findings 4/25/22: The cardiac silhouette fail to extends ventrally to the sternum. Small gas foci are noted on the left lateral projection ventral to the cardiac silhouette within the mediastinal fat. No vascular markings are noted ventral cardiac silhouette. The lungs are well-inflated and a mild diffuse bronchial pattern is present. The cardiac silhouette and associated vasculature are otherwise normal in size and margin. The diaphragmatic margin is normal. The trachea is normal in diameter and position. The surrounding tissue is normal.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

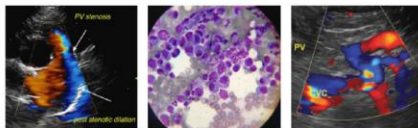
The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.0 cm in diameter.

The area of the aortic trifurcation was free of pathology. No evidence of medial iliac or sublumbar lymphadenopathy was noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.1 cm in length. The right kidney measured 7.2 cm in length.

Adrenal Glands

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.65 cm width in the cranial pole and 0.62 cm width in the caudal pole. The right adrenal gland measured 0.96 cm width in the cranial pole and 0.71 cm width in the caudal pole.

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Spleen

The spleen was overall normal in size with maintained symmetrical capsule contour and subtle generalized splenic parenchyma heterogeneity. Multiple subtly expansive well-demarcated hypoechoic nodules were noted in the mid to cranial spleen. An example measured 1.2 cm in diameter. Concurrent focal non-expansive hyperechoic benign myelolipoma was present in the cranial medial spleen. The myelolipoma measured 0.59 cm in diameter.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls containing primarily anechoic content with hyperechoic nonshadowing dependent debris. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained a mild amount of retained gastric fluid with no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No omental masses, lymphadenopathy or peritoneal free fluid were present.

ULTRASONOGRAPHIC FINDINGS

- Multiple subtly expansive hypoechoic nodules mid to cranial spleen, focal benign cranial splenic myelolipoma
- Mild hepatic parenchymal remodeling - no evidence of hepatic mass recurrence
- Mild likely static gallbladder debris - Incidental
- Mild chronic renal changes
- Mild heterogeneous bilateral adrenal glands - suspect previously noted adenomatous change



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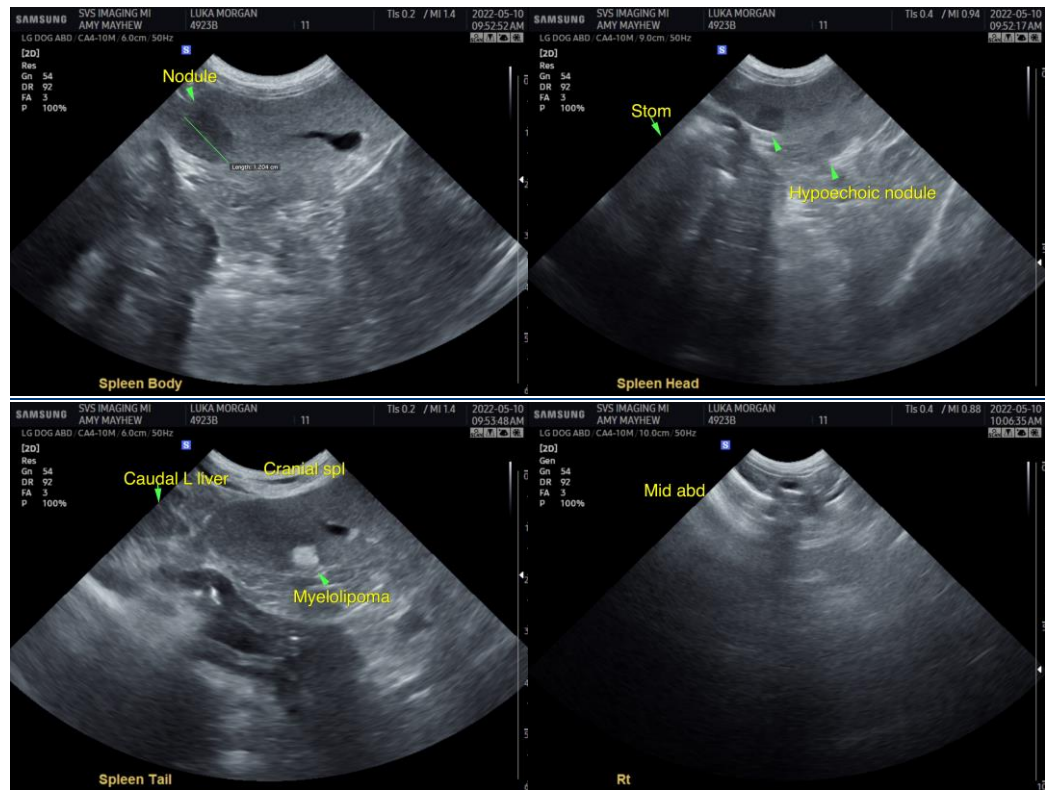
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hypoechoic splenic nodules (noted on previous ultrasound), are nonspecific with multiple etiologies possible including; areas of lymphoid hyperplasia, hematopoiesis, small hematomas, focal splenitis, or acute infarction, while the possibility of neoplastic nodules cannot be excluded. Assuming normal clotting status, ultrasound-guided FNA of an accessible hypoechoic splenic nodule (using a 25-gauge needle), is warranted for screening cytology. Sonographic monitoring of the splenic nodules for evidence of progressive changes in size or appearance with initial recheck in 4-6 weeks would be a more conservative approach.

Otherwise, largely geriatric abdomen without evidence of significant visceral specifically recurrent hepatic pathology.

Hepatosupportive medications including current Denamarin and Ursodiol are recommended with monitoring of hepatic enzymes.



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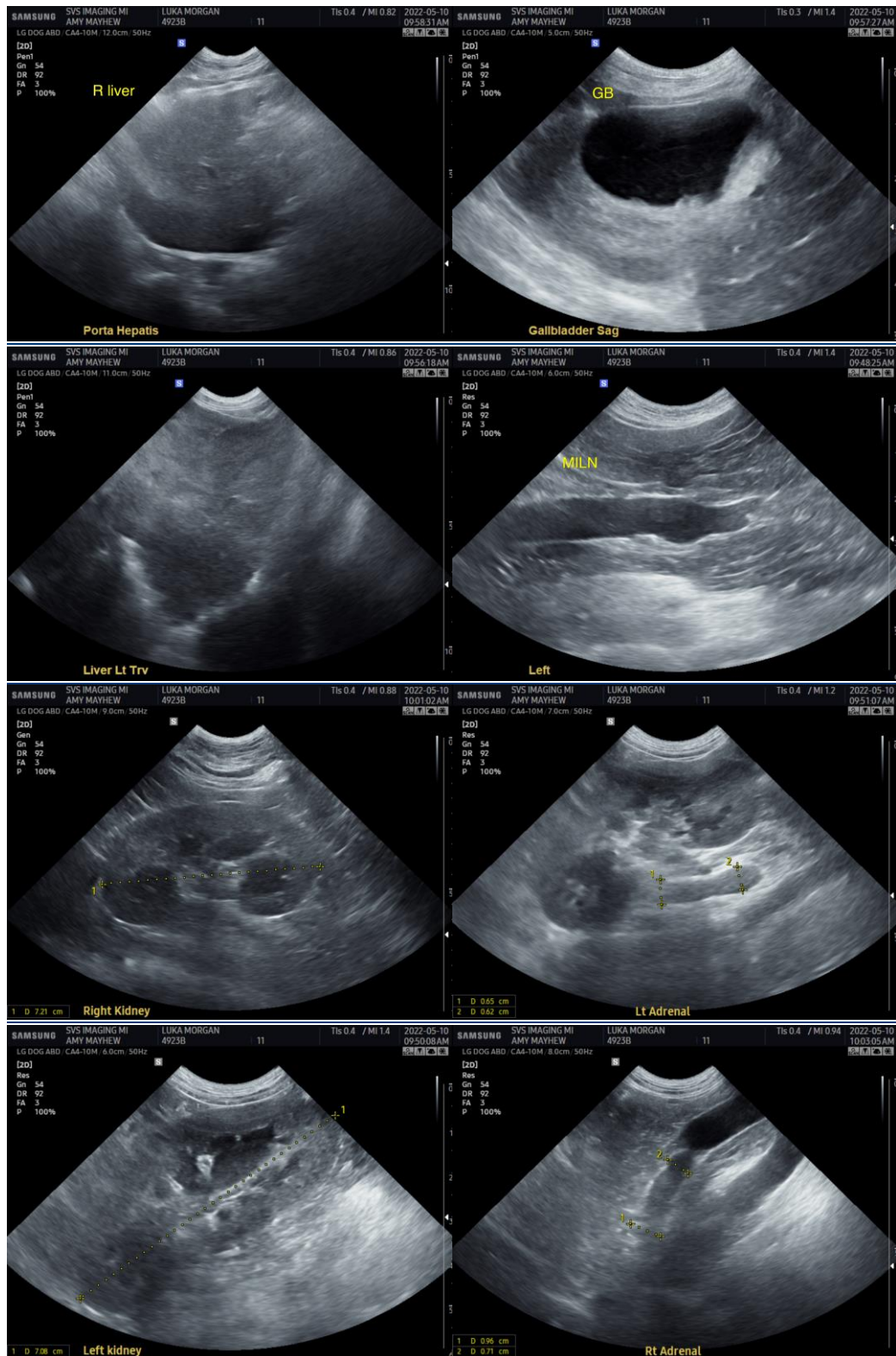
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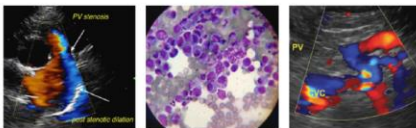
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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