



PATIENT

Gadget Markiw

SPECIES

Canine

BREED

Heeler Shep X

SEX

Spayed Female

AGE

12 Years

WEIGHT

29 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Dewinton AC

REFERRING VET

Dr. Pazej

INVOICE

16098

DATE

6/15/22

PRESENTING CLINICAL SIGNS

History: Nonclinical chronic moderate elevation of ALP over last 12 months Attending suspects Cushings Patient on butorphanol for scan
Abnormal PE/Chem/CBC/UA Results: ALP elevated Total biliruben neg as well as urinary urobiligen

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present with focal minor dependent mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted. Aortic trifurcation was normal.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.5 cm in length. The right kidney measured 6.1 cm in length.

Adrenal Glands

The left adrenal gland was mildly prominent in with maintained symmetrical capsule contour and nonhomogeneous parenchyma, including indistinct a non-expansive mild uniform hyperechoic nodule at the cranial pole, measuring 0.93 cm x 0.85 cm. The overall left adrenal gland measured 0.99 cm at the cranial pole and 0.66 cm at the caudal pole.

The right adrenal gland exhibited borderline prominent size with primarily homogeneous parenchyma and symmetrical capsule contour, measuring 0.72 cm at the cranial pole and 0.67 cm at the caudal pole.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Nondisruptive echogenic nodules were present primarily medial parenchyma and adjacent to the hilus. Some of the nodules exhibited subtle distal acoustic shadowing. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver

The liver presented enlarged in size. The parenchyma of the liver was normal in echogenicity exhibiting moderate coarse echotexture and evidence of minor parenchymal remodeling. Indistinct mildly echogenic intraparenchymal nodules are possible, likely indicative of benign lipogranulomas. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with moderate nondependent mildly congealed yet nonorganized and subjectively mobile gallbladder debris. No evidence of gallbladder or peripheral gallbladder inflammatory criteria. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal



| | |
|--|---|
| PATIENT | The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild echogenic, nonshadowing ingesta, likely consistent with minor retained ingesta or postprandial presentation. |
| Gadget Markiw | |
| SPECIES | 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. |
| Canine | Normal visible colon wall layers were present with apparent formed feces in lumen. |
| BREED | <i>Pancreas</i> |
| Heeler Shep X | The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. |
| SEX | <i>Free Abdomen</i> |
| Spayed Female | No overt lymphadenopathy or peritoneal effusion was present. |
| AGE | ULTRASONOGRAPHIC FINDINGS |
| 12 Years | <ul style="list-style-type: none"> • Vacuolar hepatopathy pattern, exhibiting parenchymal remodeling- subjectively benign • Moderate gallbladder debris (non-mucocele) |
| WEIGHT | <ul style="list-style-type: none"> • Mildly prominent bilateral adrenal glands with indistinct nonspecific left adrenal nodule • Mild chronic renal changes • Focal minor dependent urinary bladder mineral |
| 29 kg | <ul style="list-style-type: none"> • Benign splenic nodules- consistent with benign myelolipomas or potential emerging areas of splenic mineralization |
| INTERPRETED BY | <u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u> |
| R. McKenzie Daniel, DVM, DABVP (Canine and Feline) | The left adrenal nodule was nonspecific with considerations, including suspect function versus nonfunction adenoma or benign hyperplasia. Neoplastic criteria are considered less likely yet technically cannot be definitively excluded. |
| IMAGING PERFORMED BY | Full adrenal work up, including LDDST and screening blood pressure to assess for evidence of hypertension, which may allude to a potential emerging left pheochromocytoma, is suggested. Sonographic monitoring of the left adrenal nodule for evidence of progression would be ideal. Hepatosupportive medications, including Denamarin and ursodiol may prove beneficial. |
| Dr. Belan | |
| HOSPITAL NAME | Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. |
| Dewinton AC | |
| REFERRING VET | |
| Dr. Pazej | |
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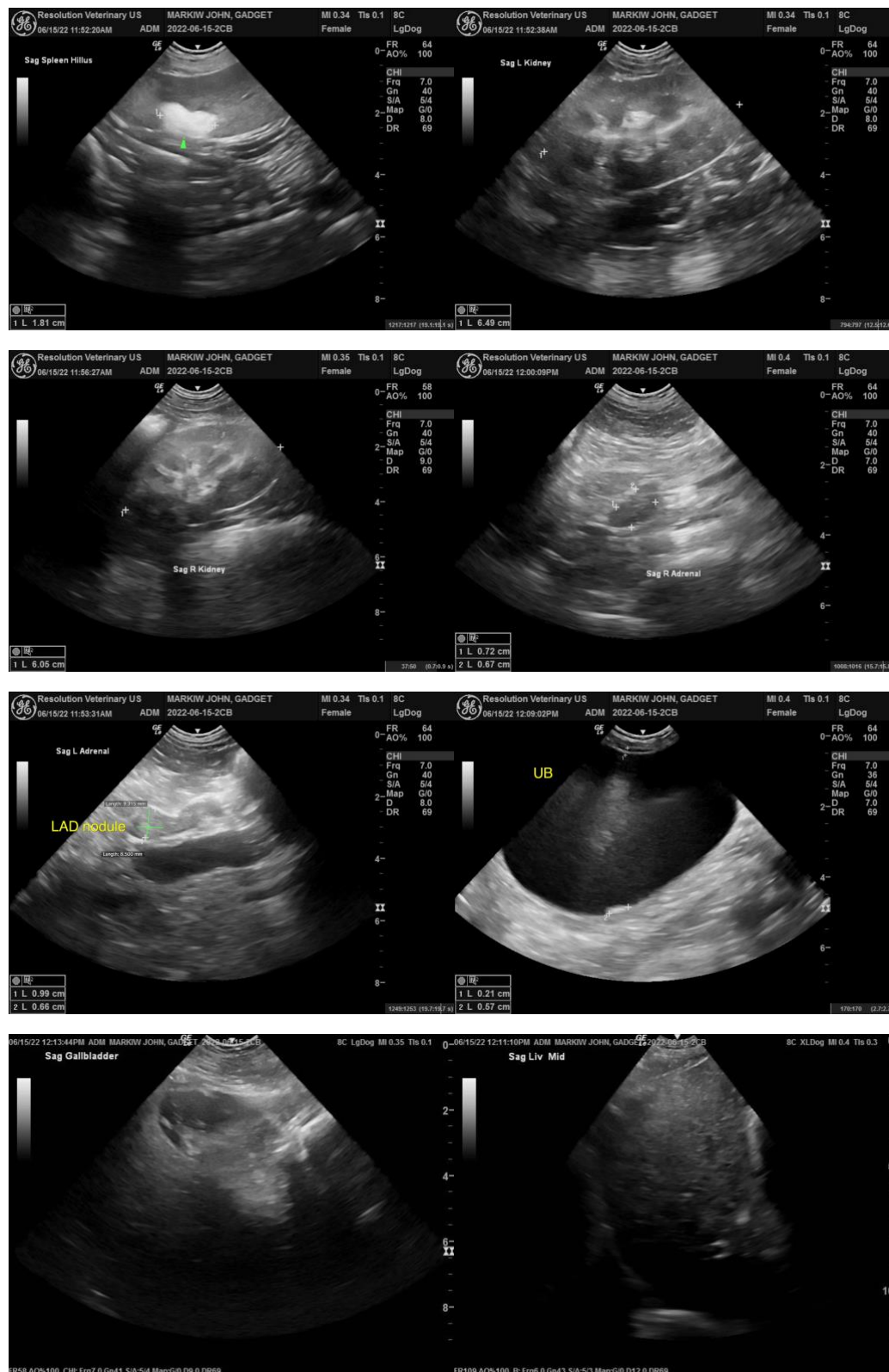
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not



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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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