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Clinical Sonography & Telecytology
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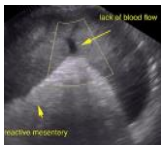
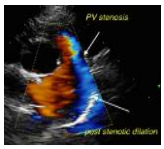
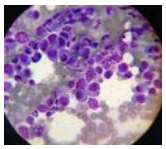
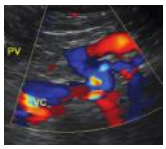




SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Lilly Garbow

SPECIES

Canine

BREED

Pug

SEX

FS

AGE

8yr

WEIGHT

24lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Banfield Pet Hospital of Bridgewater

REFERRING VET

Dr. Baker

INVOICE

11543ag

DATE

09/06/2022

PRESENTING CLINICAL SIGNS

Hx of bladder stones

Abnormal PE/Chem/CBC/UA Results: elevated ALKP (historic worsening)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder exhibited a mildly prominent homogeneous ventroapical wall measuring 0.22 cm in diameter. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with moderate non-dependent focally hyperechoic sediment and mild dependent hyperechoic to shadowing mineral/sand. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence or neoplastic changes were noted.

Normal size and margination was 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. Pinpoint to focal areas of non-obstructive medullary mineral were present. No evidence of pelvic dilation was present. The left kidney measured – cm in length. The right kidney measured – cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The left adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.61 cm width in the cranial pole and 2.3 cm length.

A mildly expansive non-homogeneous nodule was present in the mid to cranial right adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.7 cm x 1.7 cm. The right adrenal gland measured 1.8 cm width in the cranial pole and 2.3 cm length.

Spleen

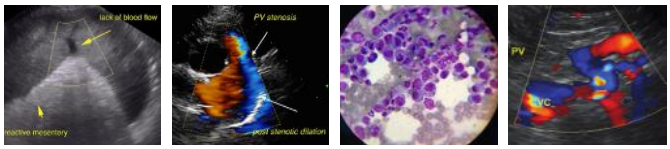
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver

The liver presented enlarged in size. The parenchyma of the liver exhibited normal echogenicity with mild remodeling. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal



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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty 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 pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum-likely a normal patient variant. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary

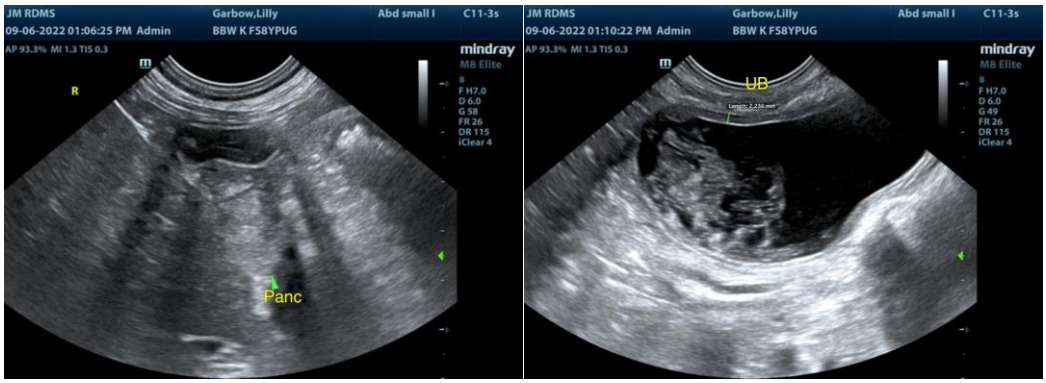
- Moderate non-dependent urinary bladder sediment with dependent mineral/sand
- Potential minor cystitis pattern
- Bilateral non-obstructive renal medullary mineral/small renoliths
- Right adrenal nodule-functional vs non-functional adenoma, benign hyperplasia, granuloma or emerging neoplasia such as pheochromocytoma, adenocarcinoma or other is possible
- Benign hepatopathy suggestive of vacuolar hepatopathy pattern
- Mild heterogenous pancreas

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

Screening BP to assess for evidence of hypertension which may allude to a right/left adrenal pheochromocytoma +/- full adrenal workup if clinical signs consistent with Cushing's syndrome are present is recommended. Sonographic monitoring of the nodule for evidence of progression with initial recheck in 4-6 weeks would be ideal.

Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.



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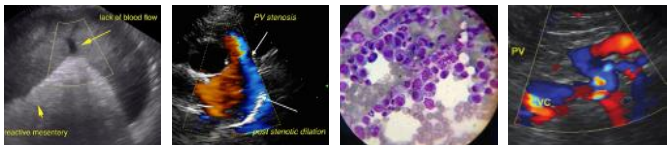

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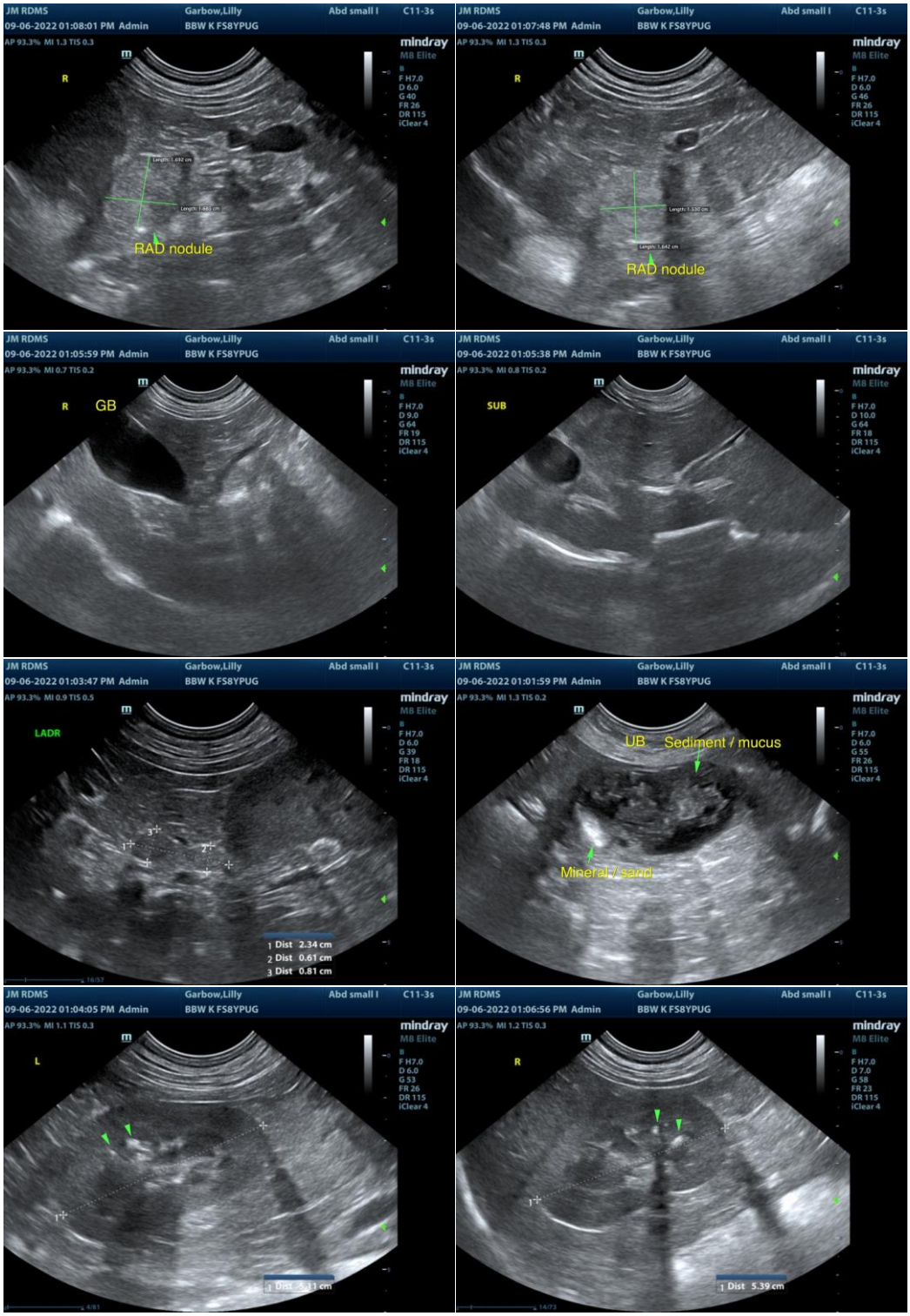

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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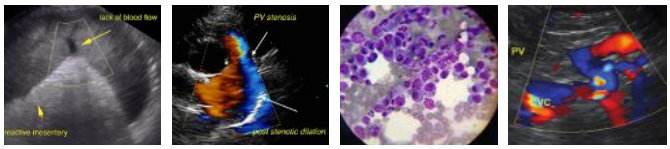

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Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com