



PATIENT

Pupa Como

SPECIES

Canine

BREED

Maltese

SEX

FS

AGE

14.5yr

WEIGHT

3.7kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Suciu

HOSPITAL NAME

Animal Clinic of
Queens

REFERRING VET

Dr. McLaughlin

INVOICE

13588ag

DATE

04/24/2023

PRESENTING CLINICAL SIGNS

Pupa was seen at the family vet on 4/19 for vomiting, anorexia and dark colored urine. She was treated as an outpatient with SQ fluids, Cerenia and famotidine. Pancreatitis was suspected based on the bloodwork, she was sent home with Denamarin, Cerenia and Entyce. Clinically, Pupa is doing better now, no more vomiting, appetite is improved, as well as the energy level. No PU/PD, urine is lighter in color. History of glaucoma, KCS, heart murmur

Abnormal PE/Chem/CBC/UA Results: High ALT 4296 (10-125) High ALP 1684 (23-212) High GGT 54 (0-11) High Total Bilirubin 4.5 (0.0-0.9) High lipase 3386 (200-1800) High BUN (33), with normal creatinine (1.1) High glucose 164 (70-142) Leukocytosis (WBC 18.80), with neutrophilia (14.52) SNAP cPL (in house) = ABNORMAL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 were 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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Minor medullary mineral and intermittent cortical cysts were present bilaterally. The left kidney measured 3.8 cm in length. The right kidney measured 3.3 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The left adrenal gland was mildly prominent in size based on caudal width and body weight. The left adrenal gland measured 0.66 cm width at the caudal pole and 0.57 cm width at the cranial pole.

The right adrenal gland exhibited variable enlargement with asymmetrical capsule contour and non-homogenous nodular non-mineralized parenchyma. The right adrenal gland measured 0.58 cm width at the caudal pole and 0.92 cm width at the cranial pole. An indistinct cranial right adrenal nodule was present measuring 1.2 cm x 0.92 cm.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/Gallbladder

The liver presented moderately enlarged in size. Normal to variable parenchymal echogenicity exhibiting moderate coarse echotexture was present. Parenchymal remodeling was present. The capsule of the liver was symmetrically rounded to mildly swollen in margination. No masses visualized. The hepatic and portal vasculature were normal in appearance without signs of congestion. The



PATIENT	gallbladder was non-distended in size with primarily anechoic luminal content and moderate mildly congealed non-organized variably hyperechoic debris. The cystic and common bile ducts were normal.	
Pupa Como		
	Gastrointestinal	
SPECIES	The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured –cm width. Mild gastric distension with mild to moderate retained anechoic fluid and gas was present.	
Canine		
BREED	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.	
Maltese	Normal visible colon wall layers were present with apparent formed feces in lumen.	
	Pancreas	
SEX	The right limb and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.	
FS		
AGE	Free Abdomen	
14.5yr	No omental masses, overt lymphadenopathy or peritoneal effusion was present.	
WEIGHT	ULTRASONOGRAPHIC FINDINGS	
3.7kg	<ul style="list-style-type: none"> • Enlarged non-homogenous liver-reactive or vacuolar hepatopathy, inflammatory/immune mediated disease, hematopoiesis, hyperplasia, non-obstructive cholestasis, early fibrosis or other hepatopathy possible. Neoplastic criteria considered less likely. • Moderate gallbladder debris-not sonographically suggestive of mature mucocele, potential for immature mucocele possible. • Prominent heterogenous/mildly hypoechoic pancreas-possible resolving active pancreatitis or chronic active pancreatitis possible. • Hypomotile gastritis pattern-potentially resolving. • Chronic renal changes with pinpoint medullary mineral and cortical cysts. • Bilateral borderline adrenomegaly with non-homogenous/nodular right adrenal gland. 	
INTERPRETED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS	
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Aside from resolving gastritis and pancreatitis, largely a geriatric abdomen. Assuming normal clotting status and with potential vitamin K premed, a hepatic FNA for screening cytology could be considered, primarily to assess for evidence of inflammatory criteria and rule out occult neoplasia.	
IMAGING PERFORMED BY	The non-uniform to nodular right adrenal gland is non-specific and may indicate functional vs non-functional adenoma, benign hyperplasia with potential for emerging neoplasia i.e., pheochromocytoma technically possible. A screening BP is advised to assess for evidence of hypertension which may allude to emerging adrenal neoplastic criteria i.e., pheochromocytoma.	
Dr. Suciu		
HOSPITAL NAME	Ideally sonographic reassessment of the right adrenal gland, pancreas and gallbladder in 4 weeks is recommended.	
Animal Clinic of Queens		
REFERRING VET	Empirically, continued supportive care for gastritis/pancreatitis would be reasonable.	
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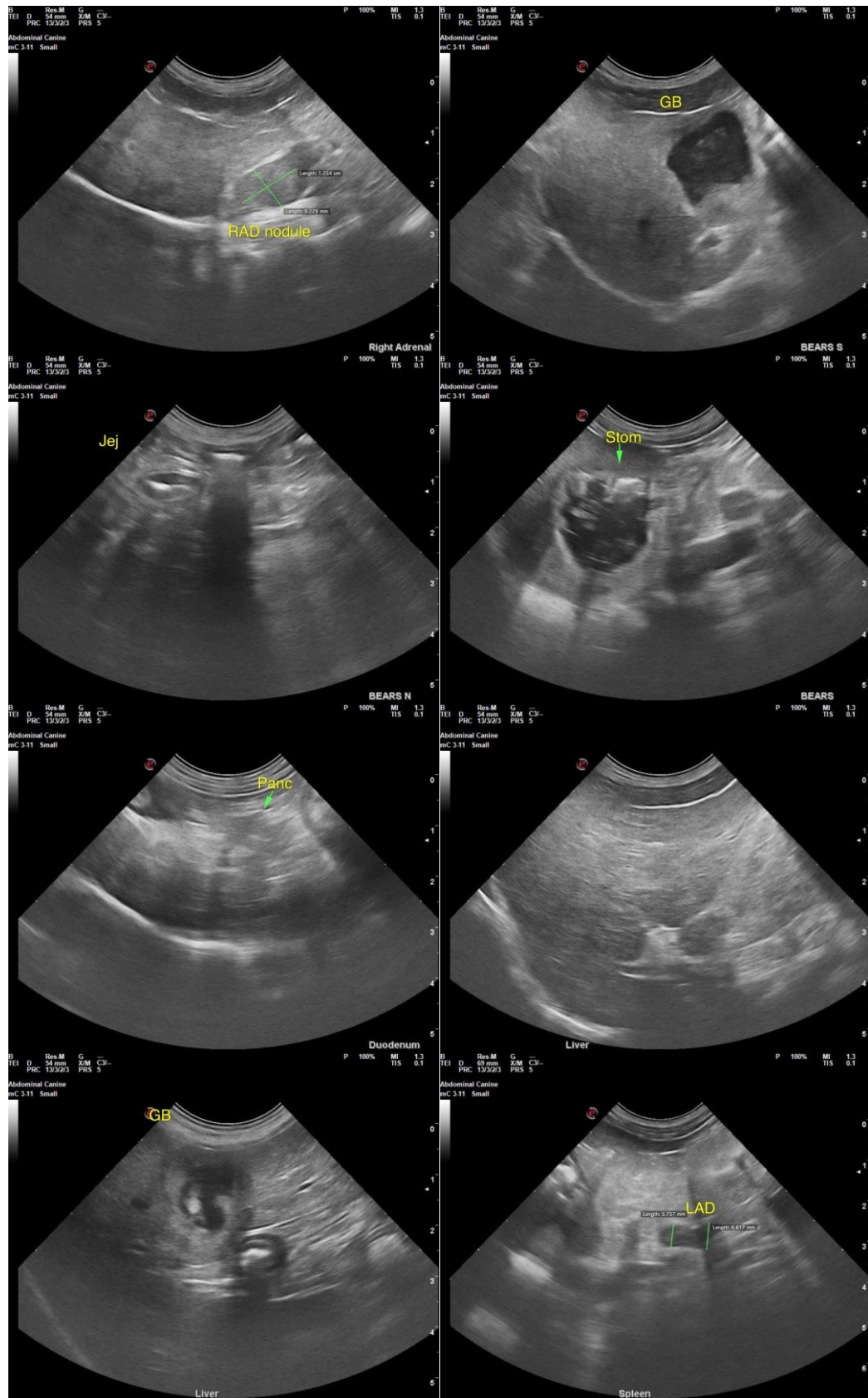
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
mac.daniel@sonopath.com

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