



PATIENT

Gisele Battifarano

SPECIES

Canine

BREED

Chihuahua

SEX

FS

AGE

13yr

WEIGHT

8.5lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Andover AH

REFERRING VET

Dr. Bihlear

INVOICE

12595ag

DATE

01/03/2023

PRESENTING CLINICAL SIGNS

hx of lethargy and inappetance- hospitalized at another hospital Nov 2022 for anorexia/vomiting/lethargy; AUS performed , hepatomegaly.

Abnormal PE/Chem/CBC/UA Results: AST 245, ALT 2701, ALKP 2825, GGT 92, tbili 7.6, chol 636, PSL 181. UA: protein 1+, bili 3+, blood 1+, rbcs 4-10, USPG 1.019

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, 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 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 bilateral areas of medullary mineral/renolithiasis were present. The left kidney measured 4.0 cm in length. The right kidney measured 4.1 cm in length

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

Bilateral symmetrical adrenal gland enlargement with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.74 cm width at the caudal pole and 1.9 cm length. The right adrenal gland measured 0.65 cm width at the caudal pole and 1.7 cm length.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, hyperechoic nodules were present throughout the cranial to caudal 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 or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver/Gallbladder

The liver exhibited borderline to mild enlargement with maintained symmetrical contour and mild uniform increased parenchyma echogenicity. No hepatic masses or nodules were noted.

The gallbladder was distended in size with mildly echogenic focally hyperechoic thickened walls and primarily anechoic luminal content with moderate non-dependent to dependent regionally congealed echogenic debris. The debris extended into the cystic biliary duct. Generalized moderate common bile duct dilation extending caudally to the level of the duodenal papilla was present with distal common bile duct non-mineralized mucus. No evidence of obstructive pathology at the level of the duodenal papilla.

Gastrointestinal



PATIENT	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained moderate non-shadowing ingesta/chyme with no signs of ileus, obstruction or foreign material.
Gisele Battifarano	
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	Pancreas
Chihuahua	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.
SEX	Free Abdomen
FS	No overt lymphadenopathy or peritoneal effusion was present.
AGE	Subtle increased omental echogenicity adjacent to the gallbladder and common bile duct.
13yr	
WEIGHT	ULTRASONOGRAPHIC FINDINGS
8.5lb	<ul style="list-style-type: none"> • Hepatopathy-subjectively chronic • Chronic cholangitis/cholecystitis pattern with moderate congealed gallbladder debris, concurrent moderate diffuse CBD dilation with distal mucoduct • Overtly normal GI tract with hypomotile stomach • Low-grade chronic to chronic active pancreatitis pattern • Bilateral mild adrenomegaly-nonspecific
INTERPRETED BY	Secondary findings
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<ul style="list-style-type: none"> • Chronic renal changes with non-obstructive medullary mineral/minor renolithiasis • Benign splenic nodules-consistent with benign myelolipomas
IMAGING PERFORMED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Diane McFadden	Aggressive therapy for cholangiohepatitis and low grade pancreatitis with as needed GI support and close monitoring of hepatobiliary and clinical response would be reasonable. Although no overt evidence of obstructive pathology at the level of the duodenal papilla, concern for possible emerging to chronic post hepatic obstruction is warranted.
HOSPITAL NAME	A full adrenal workup with LDDST may be considered given the adrenal presentation although current clinical signs are not overt consistent with Cushing's syndrome. Potential referral for surgical consideration including cholecystectomy, hepatic biopsy (assuming normal clotting status) and CBD flush vs redirection technique should be considered if progressive clinical signs or elevations in hepatobiliary parameters despite aggressive medical therapy.
Andover AH	
REFERRING VET	Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.
Dr. Bihlear	
INVOICE	**After further review, I agree with DR Daniel's assessment of chronic cholangitis/mucoduct and chronic post hepatic obstruction. Even though the duodenal papilla is in tact the common bile duct dilation (9mm) renders this a surgical issue likely owing to the echogenic debris/polyps present in the cbd. Carcinoma is a potential here. Surgical exploratory with expectations for CBD lavage/deviation and Gb removal recommended given the chronicity of the presentation and bilirubin SAP elevations that express chronic biliary congestion. -Eric Lindquist DMV, DABVP, Cert.IVUSS
12595ag	
DATE	
01/03/2023	



PATIENT

Gisele Battifarano

SPECIES

Canine

BREED

Chihuahua

SEX

FS

AGE

13yr

WEIGHT

8.5lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Andover AH

REFERRING VET

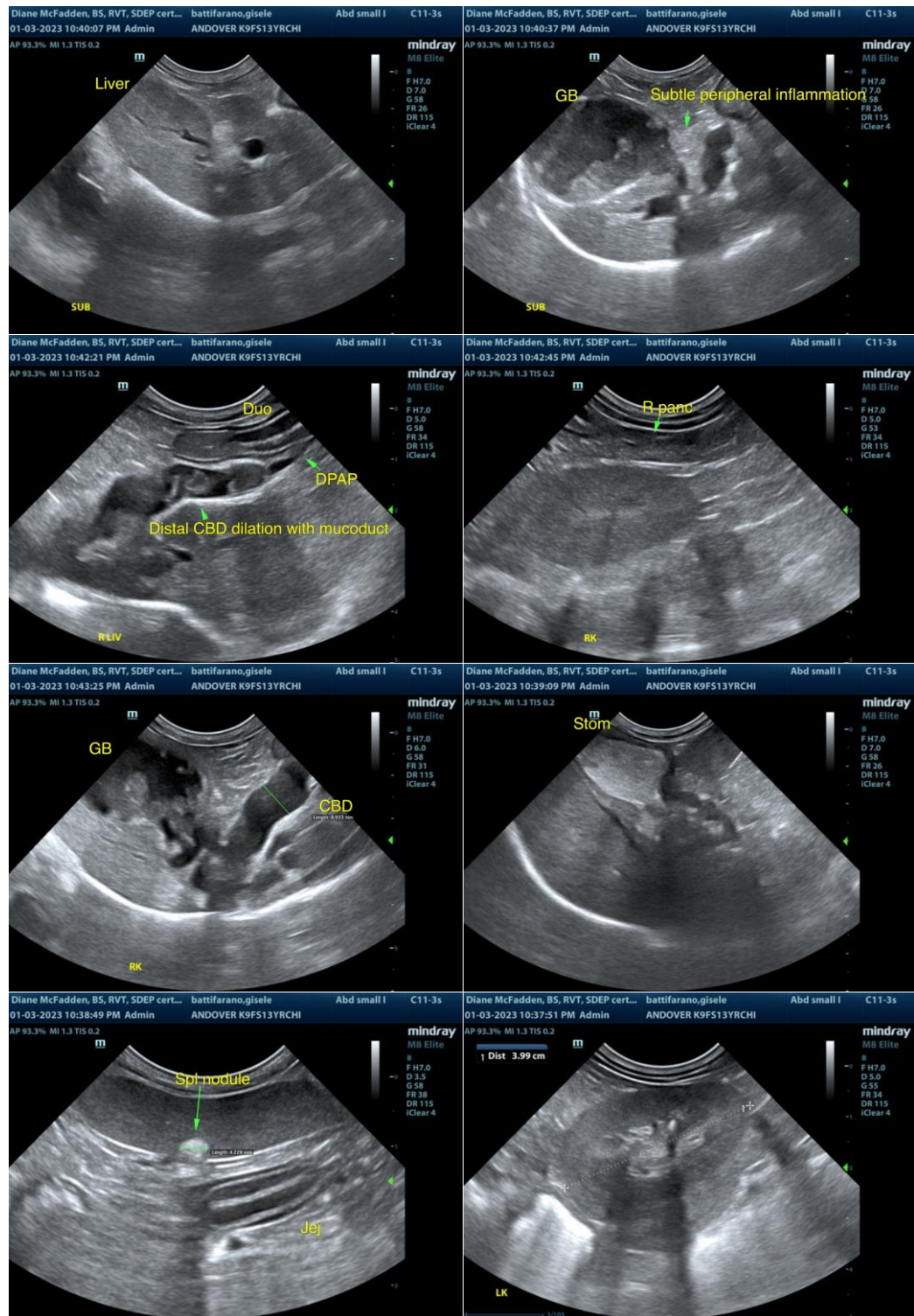
Dr. Bihlear

INVOICE

12595ag

DATE

01/03/2023





PATIENT

Gisele Battifarano

SPECIES

Canine

BREED

Chihuahua

SEX

FS

AGE

13yr

WEIGHT

8.5lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Andover AH

REFERRING VET

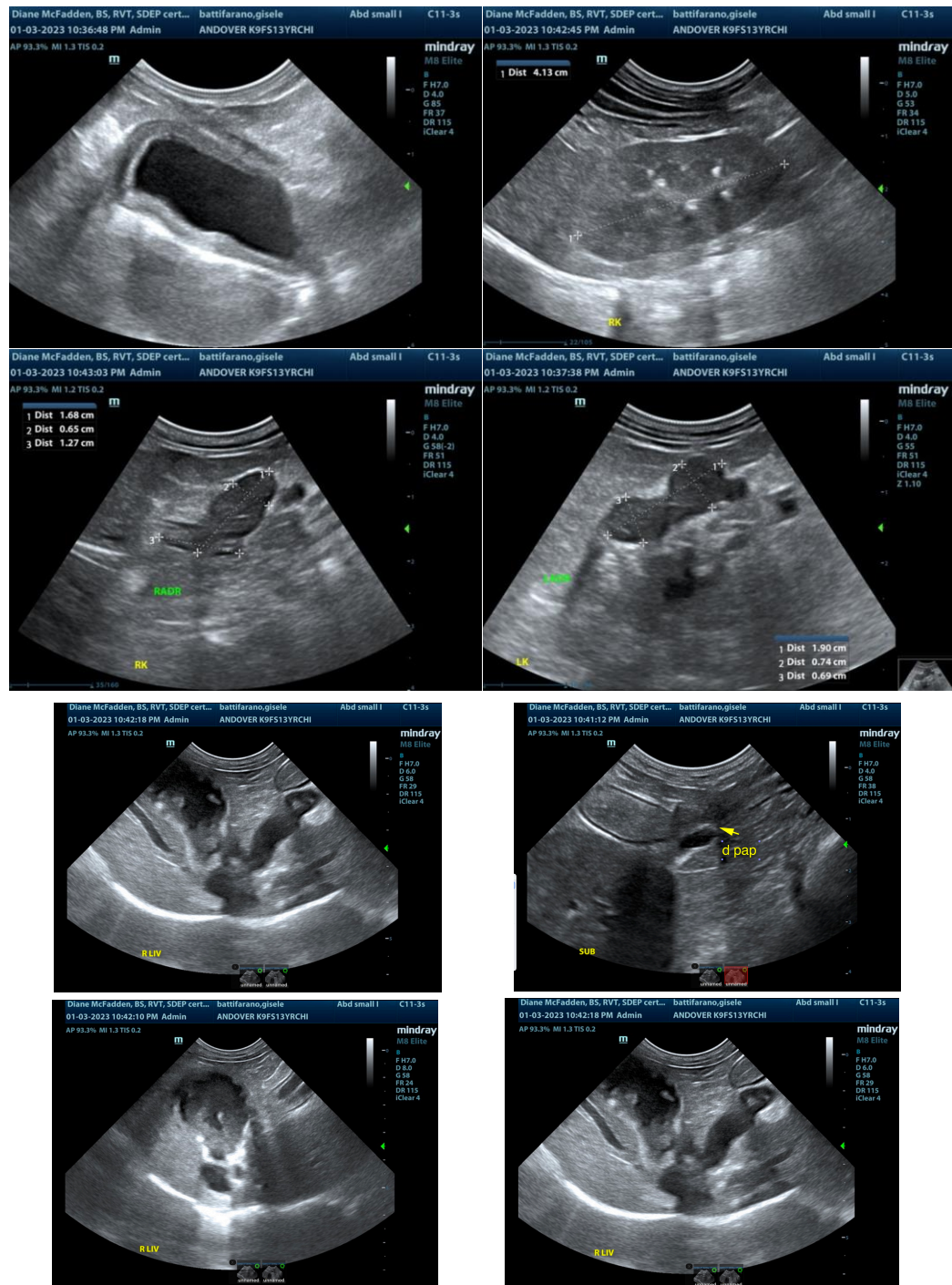
Dr. Bihlear

INVOICE

12595ag

DATE

01/03/2023



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