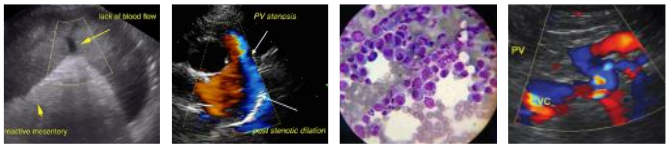
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Franklin Morrad

SPECIES

Canine

BREED

Dachshund

SEX

M/N

AGE

11

WEIGHT

9 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Alpine Vet Clinic

REFERRING VET

Dr. El Albo Saad

INVOICE

15424

DATE

11/8/22

PRESENTING CLINICAL SIGNS

Had seizures on the weekend
Abnormal PE/Chem/CBC/UA Results: Mild elevation of ALT

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no calculi 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 area of the aortic trifurcation was free of pathology.

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. Pinpoint medullary mineralization was noted bilaterally. The left kidney measured 4.4 cm in length. The right kidney measured 3.8 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 0.36 cm width in the cranial pole and 0.52 cm width in the caudal pole. The right adrenal gland measured 0.55 cm width in the caudal pole.

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. Discrete areas of focal hyperechoic splenic parenchyma were noted. Normal splenic vascularity was noted. 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 exhibited normal to possible borderline to mild subnormal size, yet subjective adequate hepatic vascular volume. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing primarily anechoic content with focal areas of congealed echogenic to hyperechoic gallbladder debris with potential emerging debris mineralization or early cholelithiasis. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

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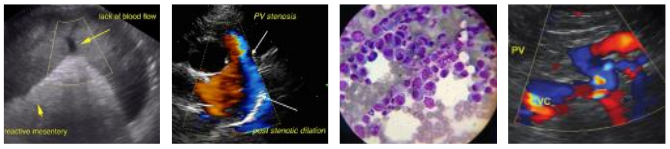

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic, nonshadowing ingesta without signs of obstruction or foreign material. Suspect post prandial presentation.

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 with mild asymmetrical capsule contour and heterogeneous, mildly echogenic parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Mild chronic renal changes exhibiting pinpoint medullary mineral
- Mild hepatopathy exhibiting subjective adequate hepatic vascular volume - potential low-grade inflammatory hepatopathy
- Focally congealed to potential emerging mineralized gallbladder debris (non-mucocele)
- Heterogeneous to echogenic pancreas - benign remodeling potentially owing to previous inflammatory episode or age-related changes, low-grade to chronic pancreatitis possible

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No overt evidence of intrahepatic or extrahepatic shunting. Further assessment of the liver may include bile acids to assess hepatic functionality, as well as screening FNA cytology, assuming normal clotting status, to assess for possible inflammatory cell type. Hepatic functionality is likely normal assuming normal albumin, glucose, BUN, and cholesterol levels. If abnormal bile acid profile, portal hypoplasia / microvascular dysplasia or possible small vascular abnormality could be considered. A definitive diagnosis may be required advanced imaging and/or core surgical hepatic biopsy for further definition.

Some or all of the following protocol may be considered if clinically indicated. A thorough neurological examination Is suggested.

Royal Canin Hepatic Support diet or Hills L/D, **Metronidazole** (7.5 mg/kg PO bid) over the next 14 days, **Lactulose** (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a **high-quality protein supplement** of minor amount of **yogurt** or **cheddar cheese**. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAMe and nutraceuticals as needed. **Ursodiol (**10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. **Zinc** serum level keep between 200—500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

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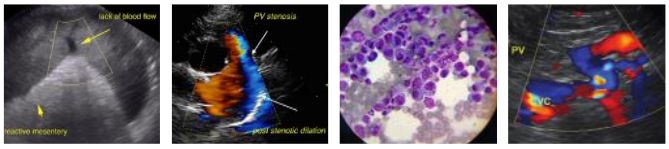

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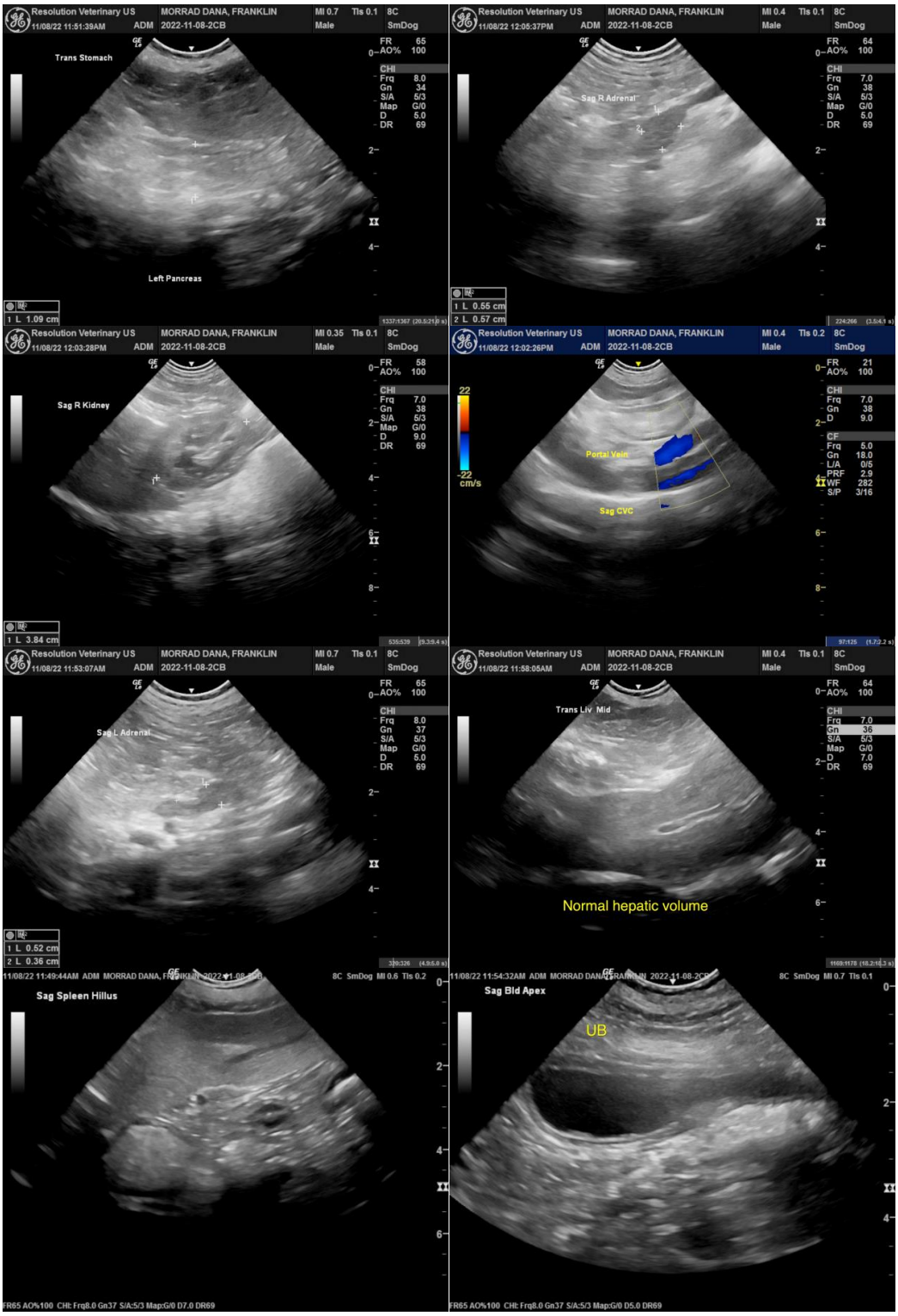

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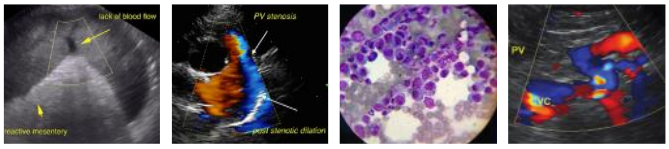

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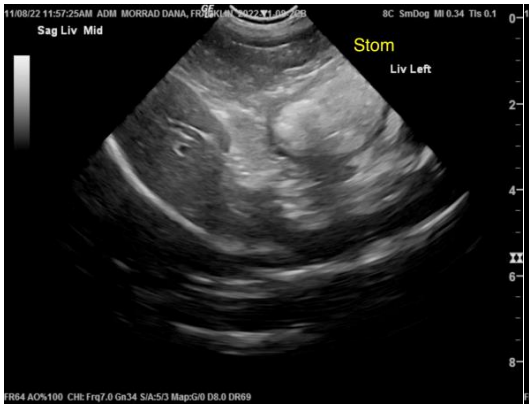

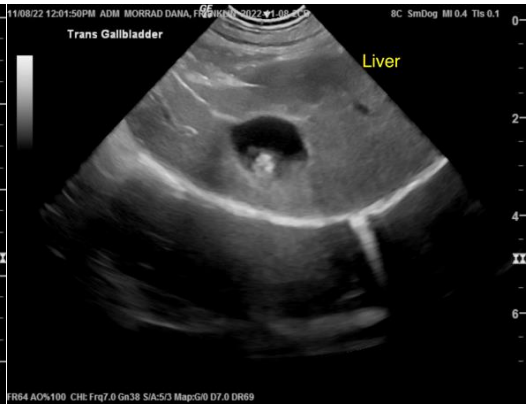

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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