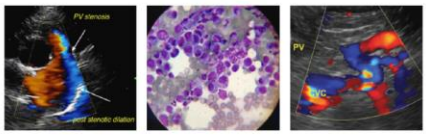
IMAGING PERFORMED BY
SVS Mobile Imaging MI 734 - 637 - 7711
svsimagingmi@gmail.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Libby Pass

SPECIES

Canine

BREED

Shih Tzu

SEX

FS

AGE

3yr

WEIGHT

8.2lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Family Pet Practice

INVOICE

12872ag

DATE

02/03/2023

PRESENTING CLINICAL SIGNS

New patient, presented for second opinion for ongoing GI issues Partial prior records (no medical notes or rads for review), has been seen elsewhere twice in the past 2 weeks with minimal improvement - starting to perk up a little and eat a little, no more blood in stools Based on prior records, P appears to have been treated for gastroenteritis with courses of metronidazole, SQ fluids, dose of cerenia, famotidine, pectlin gel, most recent visit added in additional abx therapy and probiotics. P presented with at least 2 week history of loose stools, some blood, now watery and straining to defecate, O describes increased freq and urgency. Decreased appetite noted, but Os clarify that P has always been a picky eater. On further description, sounds like P has chronic hx of vomiting over the past few months at least, last vomited 2 days ago. No known FB ingestion, but sounds like diet varies a lot and P does get table food regularly.

Abnormal PE/Chem/CBC/UA Results: On exam, P appears BAR, but per O, has been lethargic, but improving attitude Moderate tartar on oral exam, P not very tolerant of oral exam. Mildly tacky MM Tense on generalize ab palpation, worse caudally. Decreased gut sounds, but O describes audible gut noises and occ gas. No evidence of raw perineum, swelling of rectum etc Normal urinations per O, nonreactive on renal palp Good BCS - appears to be similar to prior records ALB 2.5 Na:K 35

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 and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.2 cm in length. The right kidney measured 3.6 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.47 cm width at the caudal pole and 0.35 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.42 cm width at the caudal pole and 0.46 cm width at the cranial pole.

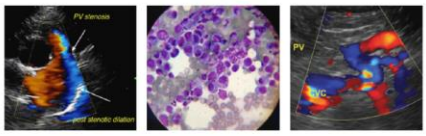
Spleen

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/Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were

IMAGING PERFORMED BY
SVS Mobile Imaging MI 734 - 637 - 7711
svsimagingmi@gmail.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Libby Pass

SPECIES

Canine

BREED

Shih Tzu

SEX

FS

AGE

3yr

WEIGHT

8.2lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Family Pet Practice

INVOICE

12872ag

DATE

02/03/2023

normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured 0.32 cm width. Mild gastric distension with moderate retained primarily anechoic fluid and luminal gas was present.

The small intestine presented intact wall layering with subtle variable muscularis/mucosa ratio. Variably prominent to hyperechoic submucosa layer was present. Mild segmental non-obstructive duodenojejunal ileus was present. The lumen of the small intestine was empty with no signs of obstruction or foreign material. The duodenum wall measured 0.34 cm width. The jejunum wall measured 0.31 cm width.

The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. Nonformed fecal matter was present in the colon lumen with lumen dilation.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No omental masses or peritoneal effusion was present.

Focal, mildly prominent to enlarged mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 1.9 cm. Subtle perilymphatic hyperechoic mesentery was noted.

ULTRASONOGRAPHIC FINDINGS

- Inflammatory gastroenterocolitis pattern with mild/moderate gastric and minor segmental intestinal hypomotility
- Mild heterogenous pancreas
- Focal to intermittent benign/reactive mesenteric lymph nodes

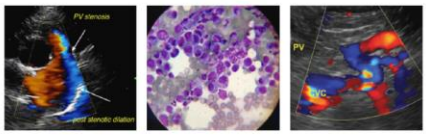
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Sonographically the gastroenterocolic presentation is suggestive of inflammatory criteria with potential IBD. Dietary intolerance / food hypersensitivity, dysbiosis, infectious disease, occult parasitism, or low grade to chronic pancreatitis both of which may appear sonographically normal are all potentials. Less likely occult Addison's disease or infiltrative neoplasia. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. No evidence of GI foreign material or mechanical obstruction is present.

Pending GI panel results, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviable or Visbiome), empirical cobalamin supplementation +/- limited antibiotic therapy such as Tylosin and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Although considered less likely considering normal adrenal presentation, a resting cortisol level to rule out occult Addison's disease is recommended. Endoscopic intestinal biopsies are likely required if GI signs continue despite empirical therapy.

IMAGING PERFORMED BY
SVS Mobile Imaging MI 734 - 637 - 7711
svsimagingmi@gmail.com

SVS IMAGING



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Libby Pass

SPECIES

Canine

BREED

Shih Tzu

SEX

FS

AGE

3yr

WEIGHT

8.2lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

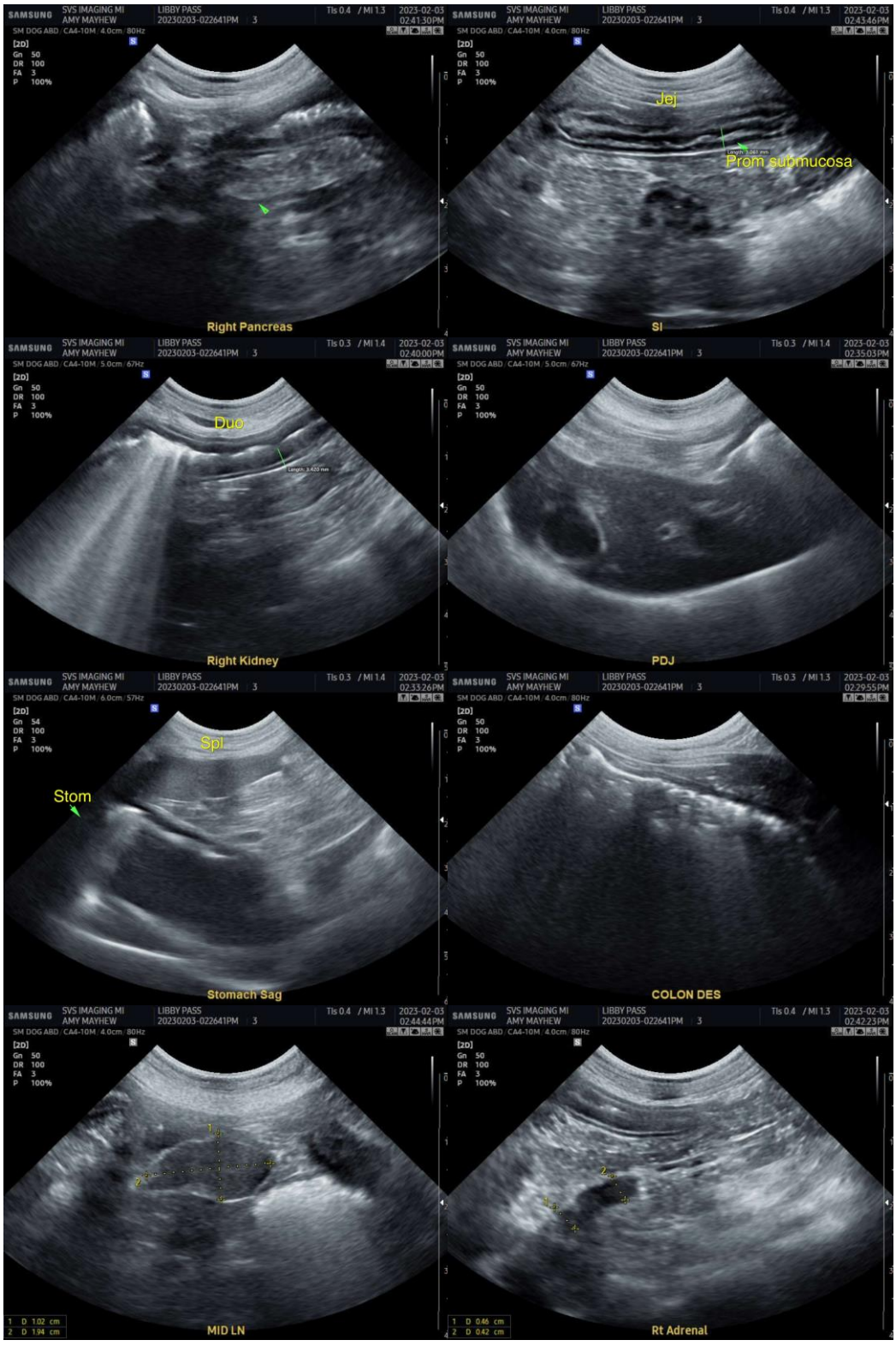
Family Pet Practice

INVOICE

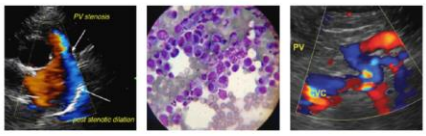
12872ag

DATE

02/03/2023



IMAGING PERFORMED BY
SVS Mobile Imaging MI 734 - 637 - 7711
svsimagingmi@gmail.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Libby Pass

SPECIES

Canine

BREED

Shih Tzu

SEX

FS

AGE

3yr

WEIGHT

8.2lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Family Pet Practice

INVOICE

12872ag

DATE

02/03/2023

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)

info@SonoPath.com