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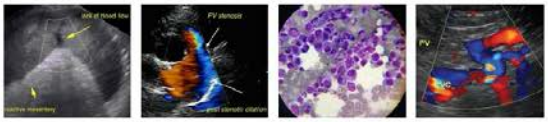


IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Blue Otto

SPECIES

Canine

BREED

Australian Shepherd

SEX

Neutered Male

AGE

10 Years

WEIGHT

50 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

North Hills VC

REFERRING VET

Dr. David Bagget

INVOICE

39847

DATE

7/26/22

PRESENTING CLINICAL SIGNS

VOMITING WEIGHT LOSS COLITIS, ACUTE Meds; Fortiflora and metronidazole Sedation: dex/otrb
Abnormal PE/Chem/CBC/UA Results: CBC: WNL Chem: low Amy = 445 (550-1500) T4: 1.5 (1.0-4.0) UA: Sp.G = 1.016, no evidence of a UTI

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. There is a small hyperechoic focus in the dependent portion of the urinary bladder measuring 0.40 cm. This is likely a small stone or hyperechoic debris.

The prostate is normal in size (0.98 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.25 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.25 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.82 cm at the cranial pole, 0.72 cm at the caudal pole, and 2.57 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat atypical in appearance in that there is a hyperechoic, irregular area on the cranial pole measuring 0.71 cm x 0.45 cm. This lesion does not disrupt the shape of the adrenal gland, and there is no evidence of vascular invasion.

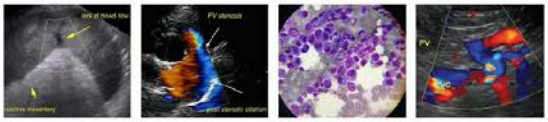
The right adrenal gland is normal in size measuring 0.44 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible



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portions of the vasculature and biliary tract appear normal. There are numerous nodules visualized throughout the hepatic parenchyma. Some of these are discrete and appear to disrupt the architecture somewhat. Two hyperechoic nodules are seen measuring 1.52 cm and 1.2 cm. Additionally, there are hypoechoic nodules measuring 0.96, 1.18 cm, and 0.81 cm. There is a hypoechoic nodule adjacent to the gallbladder, which appears somewhat like a target lesion, measuring 1.2 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. Full visualization of the stomach is difficult due to intraluminal gas shadowing. In some views, there is a small isoechoic, rounded structure measuring 0.69 cm adjacent to the mucosa. This could represent a mucosal lesion or intraluminal material. It does not appear highly vascular on doppler.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.50 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering. Large intestine measured 0.21 cm.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

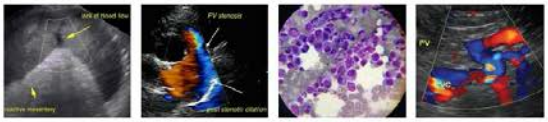
Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are some hypoechoic, significantly enlarged mesenteric lymph nodes visualized, measuring 1.07 cm and 0.76 cm in width. The omentum is generally of normal echogenicity.

PRIMARY FINDINGS

- Heterogeneous liver with hyper- and hypoechoic nodules – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. Some of these nodules appear to disrupt the architecture. Recommend fine needle aspirate.

- Moderate mesenteric lymphadenopathy – The prominent abdominal lymph nodes could be



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consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

- Small, hyperechoic focus in the dependent portion of the urinary bladder. This likely represents a small mineralization/stone.
- Ill-defined, hyperechoic region in the cranial pole of the left adrenal gland – The significance of this lesion is unknown, as it does not disrupt the adrenal gland, and it is not enlraged in that region. Recommend blood pressure evaluation and continued monitoring.
- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Small, focal rounded structure adjacent to the gastric mucosa – This could represent a mucosal lesion (benign polyp, early mass effect, etc.), or intraluminal material. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are numerous subtle lesions visualized on today's exam that are likely not significant or not directly related to the weight loss reported. There are numerous discrete hypoechoic and hyperechoic nodules within the liver. Consider a fine needle aspirate and liver function test to further evaluate this.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Additionally, there are some prominent hypoechoic mesenteric lymph nodes. Recommend a fine needle aspirate of these lymph nodes for cytologic evaluation.

The significance of the small gastric lesion visualized is uncertain. This could represent a benign polyp, an early mass lesion, etc. Visualization of the stomach was difficult due to intraluminal gas and ingesta. If vomiting persist, consider upper GI endoscopy to further evaluate the gastric mucosa and to obtain GI biopsies

While awaiting results of diagnostic testing, you could consider a diet trial with a novel protein/hydrolyzed protein prescription diet, chronic probiotic therapy, and if upper GI endoscopy is pursued, you could combine this with colonoscopy if large bowel symptoms persist.

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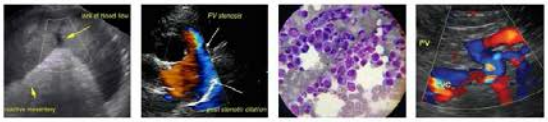

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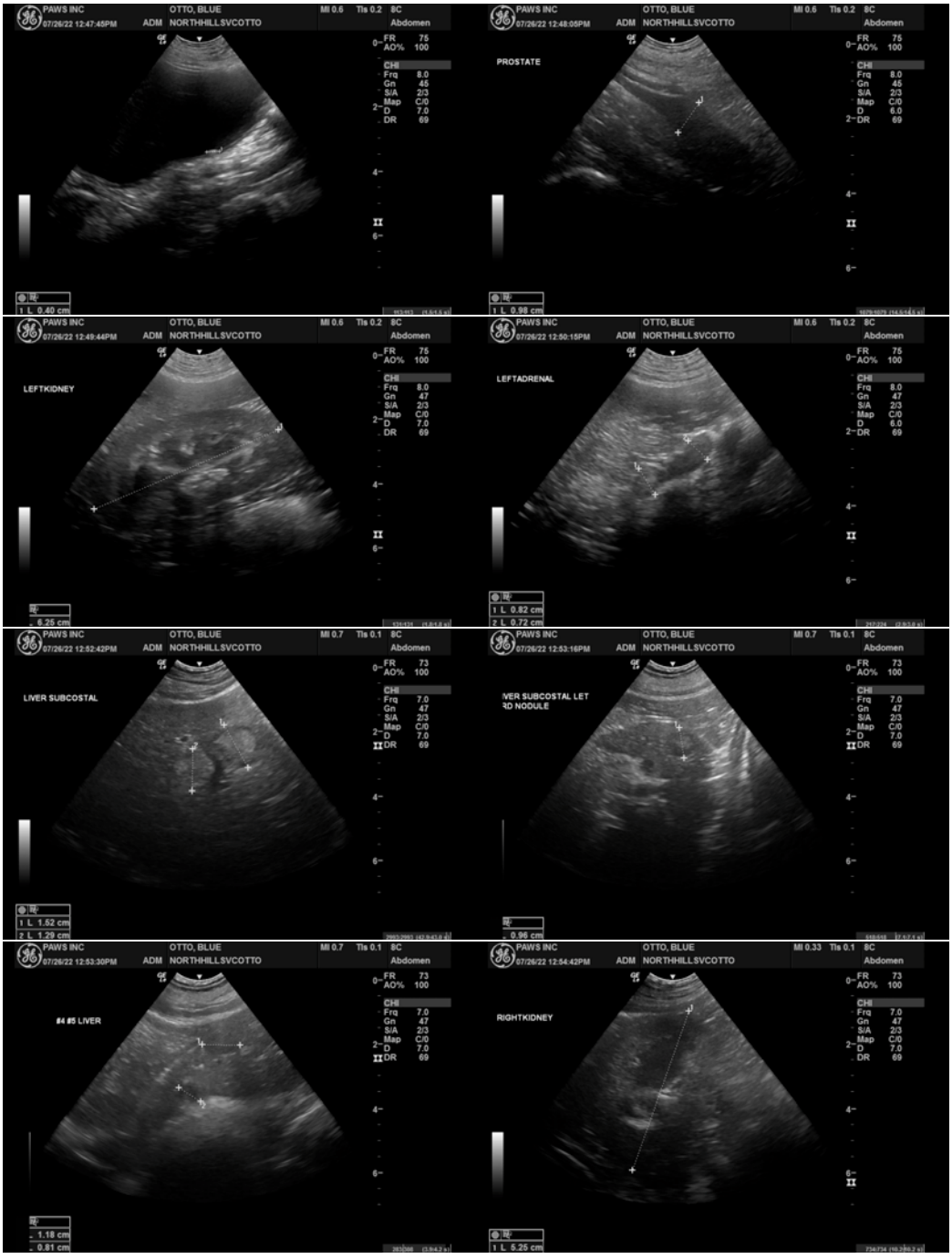

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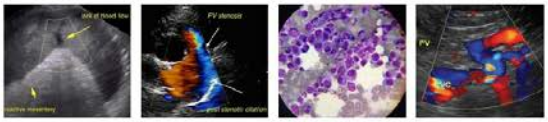

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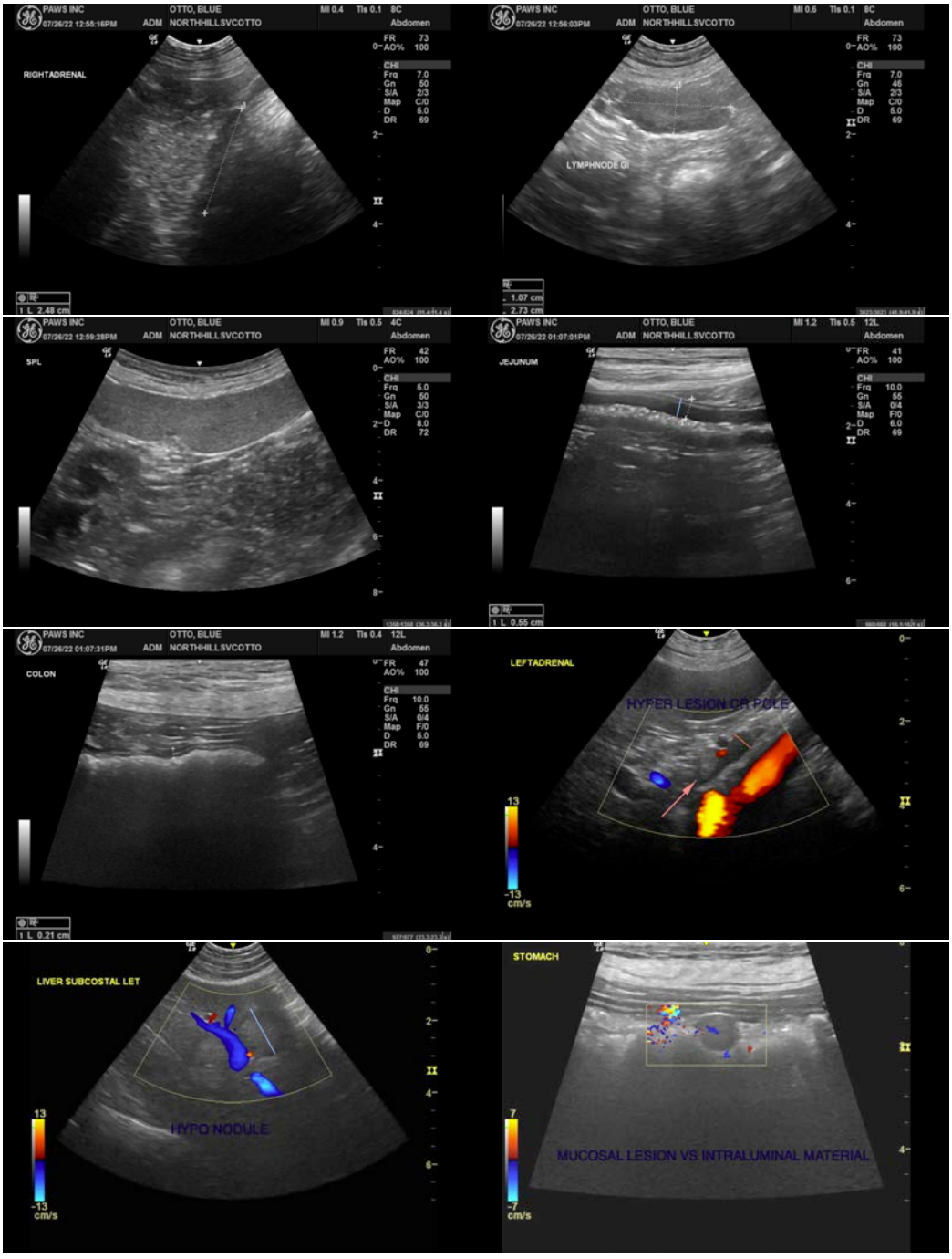

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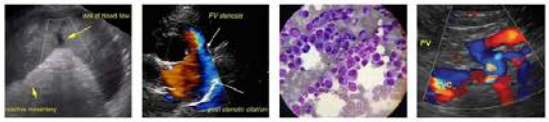

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
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