

**PATIENT**

Tubby Radin

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

10 Years

WEIGHT

9.8 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VETWixom Family Pet
Practice**INVOICE**

42156

DATE

10/18/22

PRESENTING CLINICAL SIGNS

Current Medications: None Patient History: Recent history of weight loss per owner, chronic vomiting, has gotten worse over the last several weeks, now vomiting twice a week. Seems lethargic on the days she vomits.

Abnormal PE/Chem/CBC/UA Results: Abnormal Examination Findings: BW-NSF UA-proteinuria 2+ Please see attached labs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, the volume of which appears more significant than is typically seen with incidental suspended lipid in a cat and is likely at least in part exfoliated cells, mucus, and/or small blood clots and/or crystals. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are normal in size with increased cortical echogenicity. Normal smooth peripheral margination and shape are maintained. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Infiltrative disease (infectious, neoplastic, etc.) or nephritis cannot be ruled out but is considered less likely. The left kidney measures 3.66 cm. The right kidney measures 3.84 cm. Non-obstructive areas of mineralization/nephroliths are noted in both kidneys.

Adrenal Glands

The right adrenal gland is normal in size (0.49 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.41 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. However, given the reported history of fasting, delayed gastric emptying could be considered. Soft (cloth) fluid absorbing foreign material is

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considered less likely but cannot be definitively ruled out. If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease. There is a hyperechoic line within the mucosal layer parallel to the submucosa. This can be a normal patient variant. However, in cats it is also often associated with mucosal fibrosis on histopathology.

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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

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Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

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PRIMARY FINDINGS

- **Hyperechoic band within the small bowel mucosa** – This may be normal patient variant. However, in cats it can also be associated with mucosal fibrosis and inflammatory bowel disease.
- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.

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DACVIM**SECONDARY FINDINGS**

- Urinary bladder debris
- Non-obstructive nephrolithiasis bilaterally in the kidneys

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**HOSPITAL NAME**

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Given this patient's reported proteinuria and weight loss, a urine protein to creatinine ratio is recommended for further quantification to help determine whether medical intervention of the proteinuria is required.

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Given the bowel changes described above, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

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A T4 and free T4 could also be considered, given the vomiting and weight loss.

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Ideally biopsies of the GI tract, being sure to include ileum, if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease. However, if empirical therapies are elected prior to more invasive biopsies, empirical deworming with a 5-day course of Panacur, as well as transition to a hydrolyzed protein diet are recommended in addition to cobalamin, if indicated based on GI panel results.

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Incidentally, this patient was reported to have been rescanned 24 hours following the initial reported fasted, and stomach contents reportedly appeared similar. I did not see the follow up images. However, if the stomach contents have not moved, that is further evidence of gastric disease, delayed gastric emptying, ileus, etc., possibly secondary to the suspected infiltrative bowel disease. Foreign material can't be ruled out but is considered less likely.

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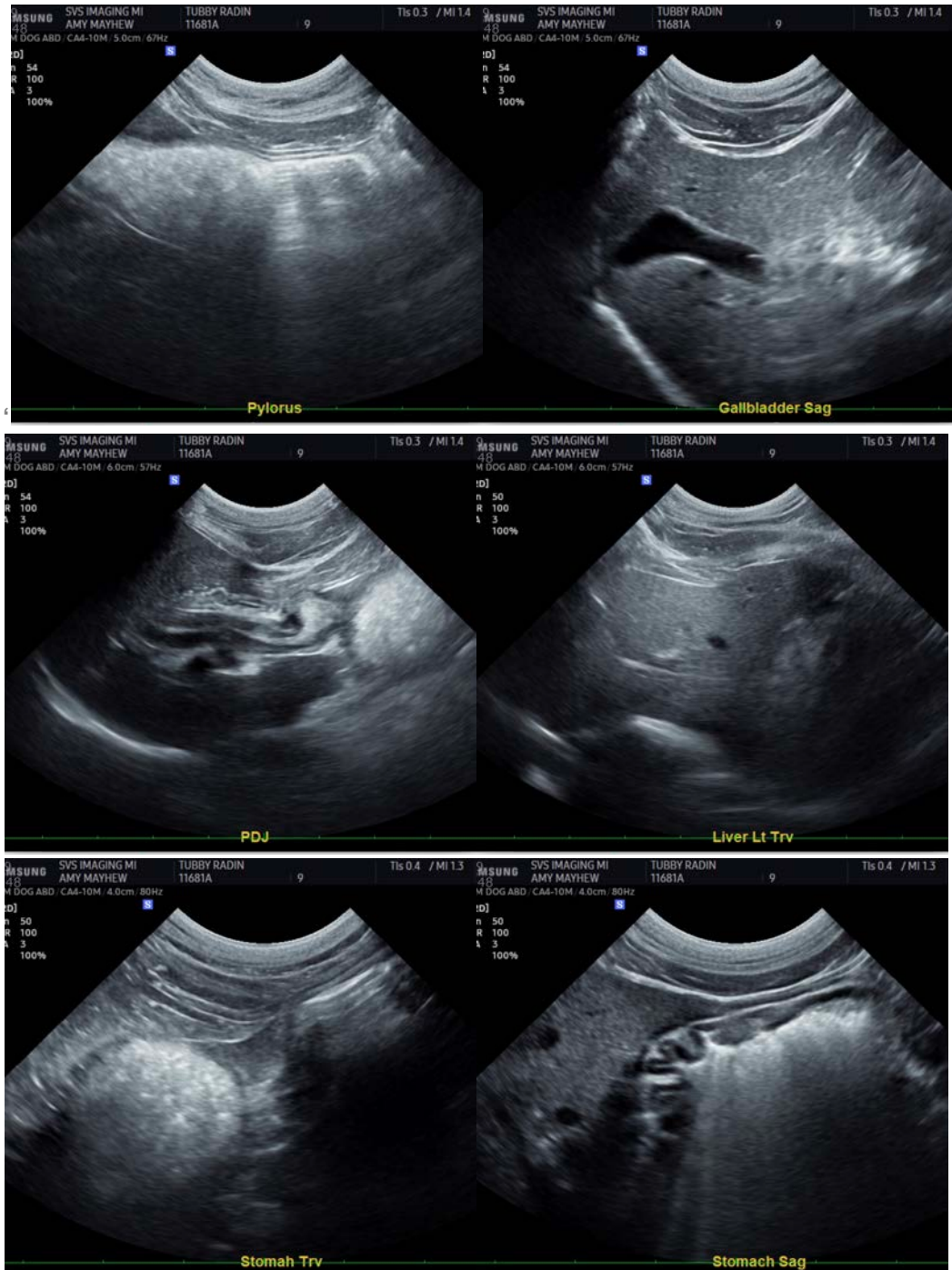
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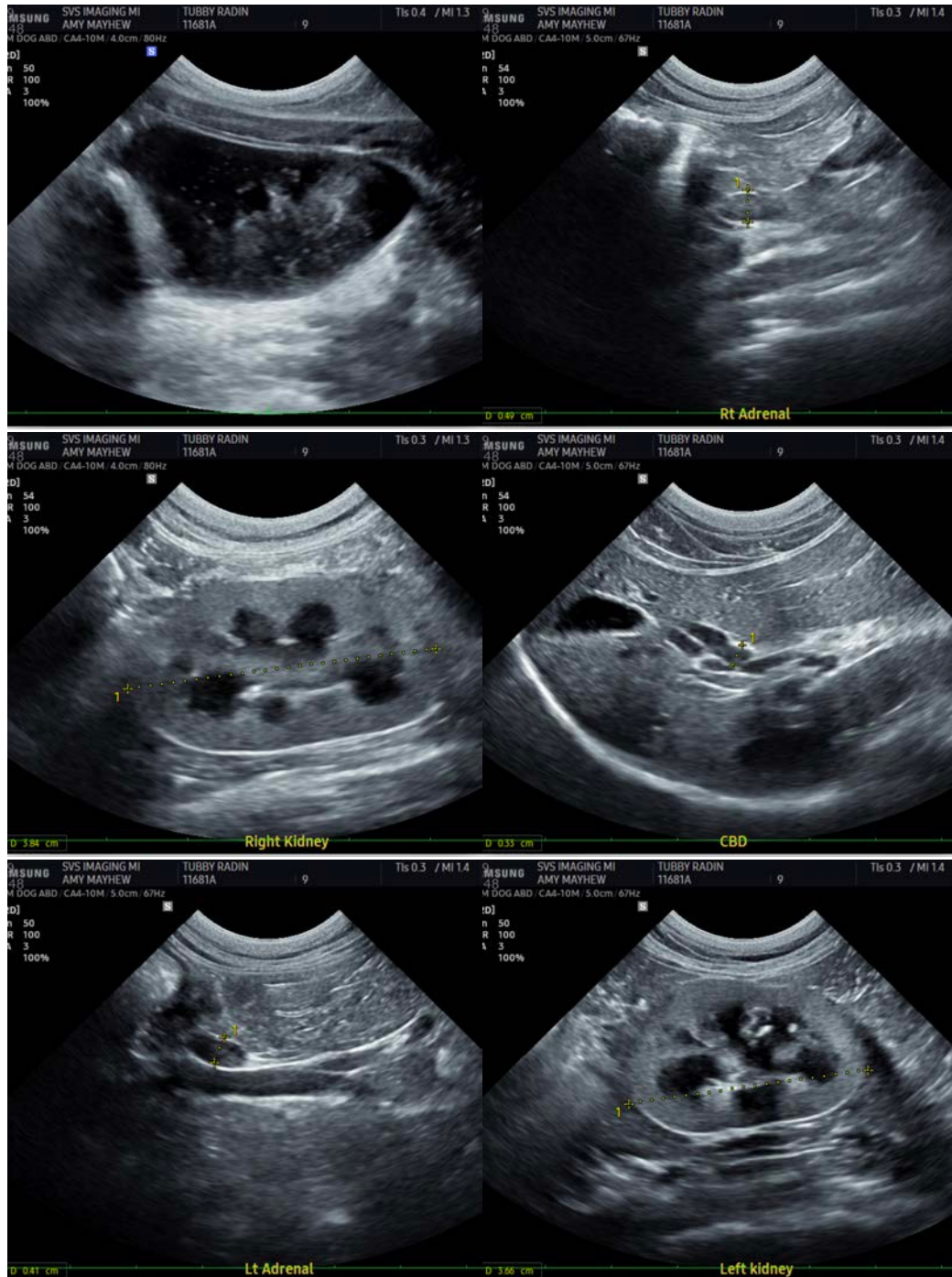
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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