

**PATIENT**

Betty Shirak

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

13 Years

WEIGHT

13.14 Pounds

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

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VETWixom Family Pet
Practice**INVOICE**

42174

DATE

10/19/22

PRESENTING CLINICAL SIGNS

Current Medications: RCVD Ultamino dry, Hill's z/d canned Gabapentin 25 mg q 8-12 hours PRN Prednisolone 2.5 mg q 24-48 hours PRN Subcutaneous Fluids 100 ml SID Patient History: Hyperthyroid - unmanaged. Adverse reaction to Methimazole, discontinued. Not a good candidate for y/d diet or surgery. Owner unable to pursue radioactive iodine. Chronic Kidney Disease - IRIS Stage 3 Facial pruritus, rostral lip mass - open, excisional biopsy scheduled for Friday 10/21. Chronic Advanced Osteoarthritis

Abnormal PE/Chem/CBC/UA Results: Rostral mandibular lip ~ 2 cm firm hyperpigmented, markedly sensitive and pruritic cutaneous mass. 10/5/22 - BUN 69, CREA 4.9, P 5.9 Bilateral stifles - patellar entheses. Right stifle - mineralization with the stifle joint, severe osteoarthritis

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted in both kidneys. Mild pyelectasia noted on the left, more significant pyelectasia noted on the right (0.45 cm in the transverse view). The left kidney measures 3.31 cm. The right kidney measured 3.64 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.46 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.44 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

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. 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. A tortuous common bile duct is noted at the upper end of normal dilation. This is often a normal anatomic variant in a senior cat. However, chronic cholangitis or resolved cholangitis cannot be definitively ruled out.

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Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. This finding is most prominent in the ileum. The lumen is empty with no evidence of obstruction or foreign material.

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

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

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

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- **Pancreatic age-related remodeling** – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- **Chronic Kidney Disease** – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.
- **Bilateral Pyelectasia** – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's suspicion of inflammatory bowel disease combined with positive response to a hydrolyzed protein diet, hyperthyroidism, lack of tolerance for Methimazole, and chronic kidney disease, balancing medical management is difficult. Some recommendations, if not recently evaluated, include:

Given the bilateral pyelectasia, ruling out pyelonephritis is recommended. Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Blood pressure is recommended if not recently evaluated.

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In case additional medical management of the presumed inflammatory bowel disease i.e., cobalamin supplementation could be helpful, 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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Otherwise, proceeding with management of the skin lesion/mass is recommended, as is reportedly planned, being careful to avoid additional kidney insults during anesthesia, etc., such as hypotension and/or nephrotoxic medications, including pain medications.

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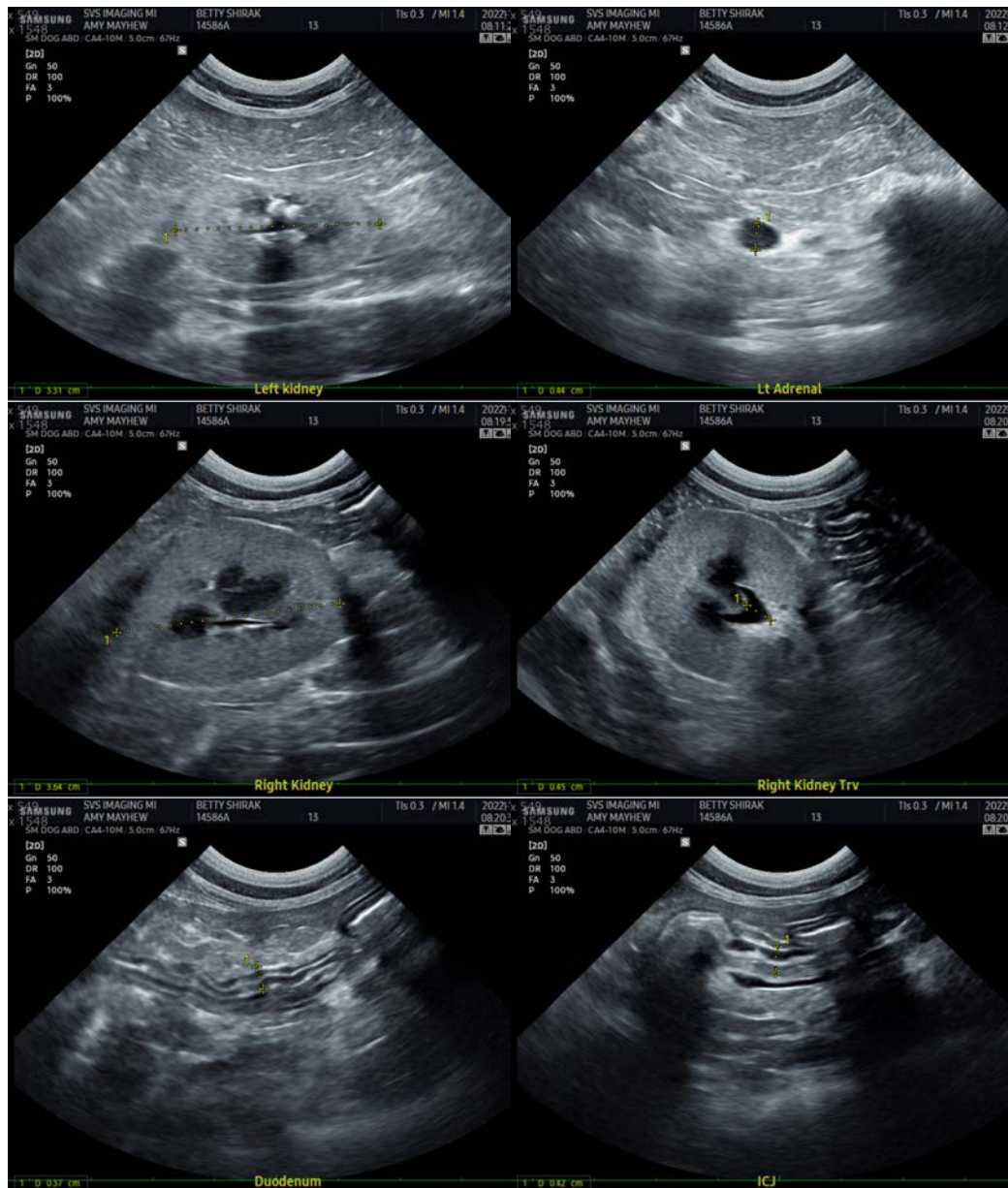
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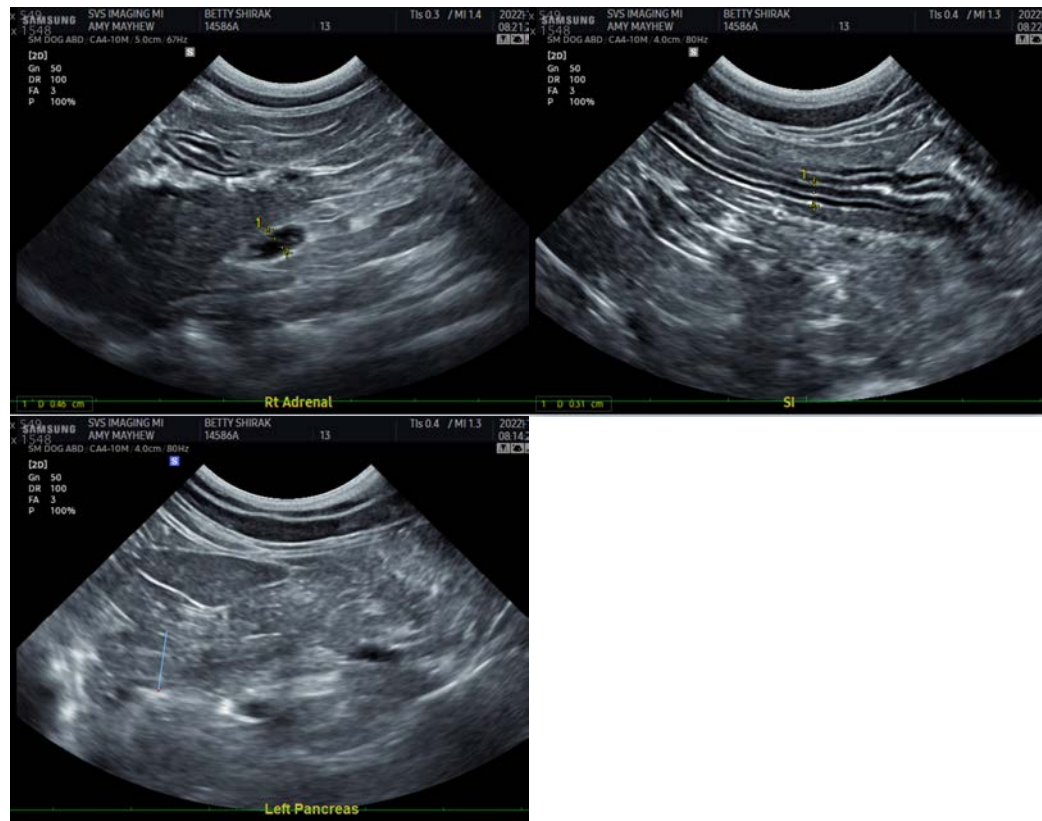
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com