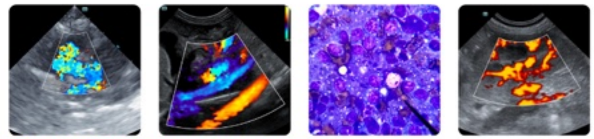


PATIENT

Simon McMahon

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

10 years

WEIGHT

10.8 lbs

INTERPRETED BY

Alicia Angosto Guerrero, DMV, PgDip, MSc.

IMAGING PERFORMED BY

Dr. Jones

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Jones

INVOICE

74015

DATE

4/1/26

PRESENTING CLINICAL SIGNS

- Weight loss with elevated Ca at 11.6, Eating and drinking normally. Concerned about emerging lymphoma

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is normally distended. The bladder wall is thin, smooth, and regular. The luminal contents are anechoic. Normal appearance of the bladder neck and proximal urethra. No evidence of urolithiasis or inflammatory or proliferative changes is identified.

The left kidney is normal in shape and size, measuring 4.10×2.49 cm in the sagittal plane. Cortical thickness is 0.38 cm. The right kidney is normal in shape and size; however, measurements were not obtained. Both kidneys show increased cortical echogenicity compared to the hepatic parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. A medullary rim sign is present. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler evaluation demonstrates a normal vascular pattern.

Adrenal Glands

Dorsoventral diameters measured in the sagittal plane: the left adrenal gland measures 0.30 cm at the cranial pole and 0.31 cm at the caudal pole, within normal limits for a feline patient. The right adrenal gland is not confidently visualized.

Spleen

Splenic thickness is 0.73 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

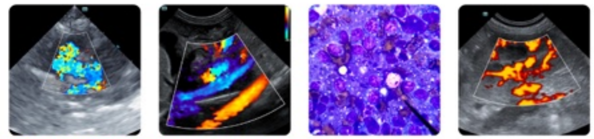
Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder is moderately distended. The wall is thin and regular. The luminal contents are predominantly anechoic with a small amount of biliary sludge. The common bile duct measures 4.33 mm proximally, tapering to 2.86 mm and 1.76 mm distally.

Gastrointestinal

The stomach contains a small amount of ingesta. Gastric wall thickness is 1.73 mm with preserved layering. The pylorus measures 3.81 mm. Duodenum: 1.86 mm.



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Jejunum: total wall thickness 3.03 mm, with mucosa 1.66 mm, submucosa 0.69 mm, and muscularis propria 0.54 mm. Wall layering is preserved. Ileum: total wall thickness 2.76 mm, with mucosa 0.94 mm, submucosa 0.87 mm, and muscularis propria 1.09 mm. Wall layering is preserved.
The ileocecal junction measures 2.03 mm, with muscularis thickness of 0.77 mm.

Colon: 0.81 mm, containing formed feces within the descending segment.

Pancreas

Pancreatic thickness ranges from 8.72–9.19 mm. The margins are irregular. The parenchyma is hypoechoic relative to the adjacent omental fat. The pancreatic duct measures 1.86 mm in diameter. No hyperechogenicity or reactive changes are observed in the surrounding peripancreatic fat.

Free Abdomen

No abdominal effusion or signs of peritonitis are present.

Cranial mesenteric lymph nodes measure 4.53–5.64 mm, are normal in shape, and hypoechoic, with mild hyperechogenicity of the surrounding mesenteric fat.

Ileocecal lymph nodes measure 4.23–3.77 mm, with normal shape and echogenicity, also associated with mild perinodal fat hyperechogenicity.

The region of the iliac trifurcation appears normal.

PRIMARY FINDINGS

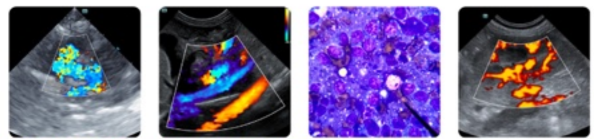
- Ileal muscularis thickening (muscularis-to-mucosa ratio >1).
- Hyperechogenicity of mesenteric fat surrounding lymph nodes.
- Pancreatic enlargement with irregular margins and hypoechogenicity
- Pancreatic duct dilation (1.86 mm)

SECONDARY FINDINGS

- Increased renal cortical echogenicity with medullary rim sign

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Intestinal wall thicknesses are within accepted feline reference ranges, and wall layering is preserved throughout, which does not support high-grade lymphoma. However, the ileal muscularis (1.09 mm) exceeds mucosal thickness (0.94 mm), resulting in a muscularis-to-mucosa ratio >1, which is abnormal in cats. This finding is well described in both chronic inflammatory enteropathy and low-grade (small cell) lymphoma, and does not allow reliable differentiation between these entities on ultrasound alone. Mesenteric lymph nodes remain within normal size limits and retain overall normal morphology, which does not support advanced lymphomatous involvement. However, the mild hyperechogenicity of the surrounding mesenteric fat, together with the relatively decreased echogenicity of the cranial



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mesenteric lymph nodes, prevents complete exclusion of an early or low-grade infiltrative process at this stage.

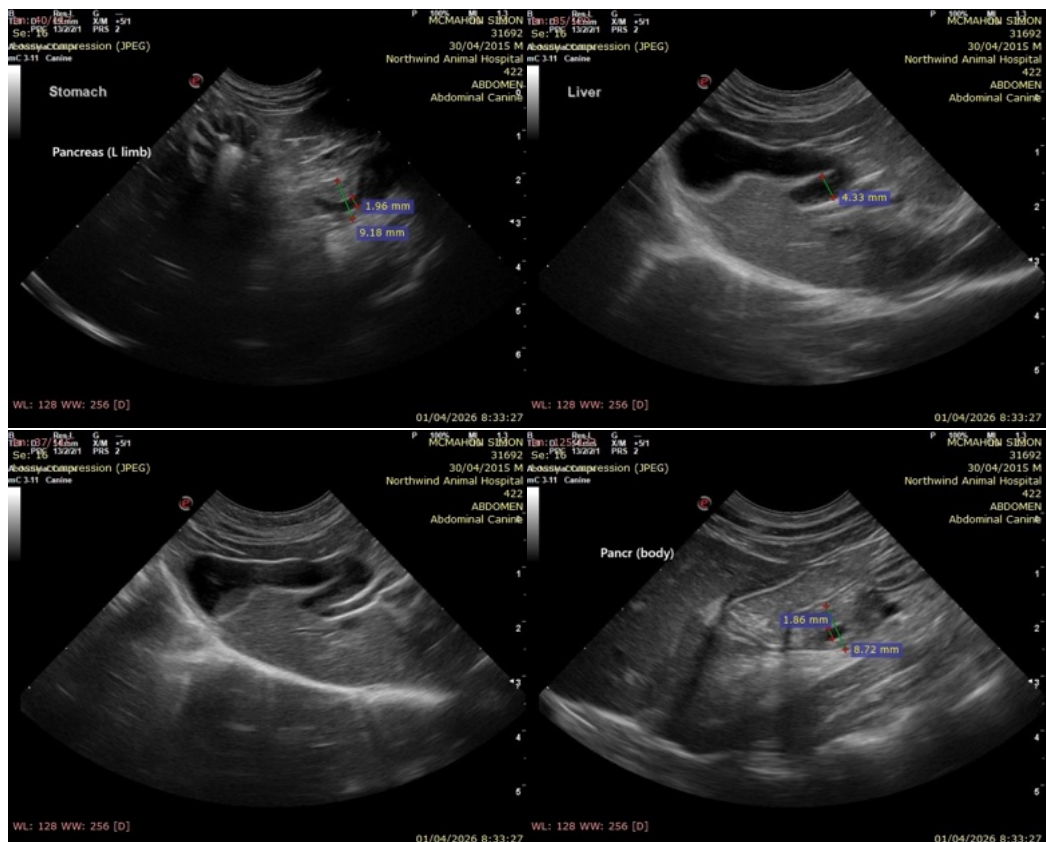
Pancreatic changes are compatible with chronic pancreatitis. The absence of peripancreatic fat changes does not exclude pancreatic disease in cats. In combination with the intestinal findings and mild biliary changes, a concurrent triaditis-type process is a reasonable consideration.

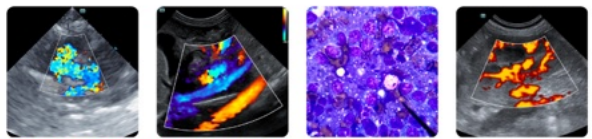
Renal cortical hyperechogenicity with a medullary rim sign is noted, with preserved architecture and normal cortical thickness, consistent with mild or early renal change or a metabolic effect (including hypercalcemia).

Recommendations

- Further evaluation of hypercalcemia: Ionized calcium, PTH, and PTHrP
- GI panel including fPLI.
- Intestinal biopsy should be considered for a definitive diagnosis.
- Correlate with renal parameters (creatinine, SDMA, urinalysis).
- Ultrasonographic follow-up.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.





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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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

info@SonoPath.com