



## PATIENT

Mira Wennerlind

## SPECIES

Feline

## BREED

Domestic Shorthair

## SEX

Spayed female

## AGE

13 years

## WEIGHT

15 lb

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Marie Allen

## HOSPITAL NAME

North County AH

## REFERRING VET

Dr. Allen

## INVOICE

70278

## DATE

1/19/26

## PRESENTING CLINICAL SIGNS

- Originally seen for defecating outside the litter box and an increase in vomiting.
- Vomitous is primarily bile and stools are hard and pebble like
- BCS 9/9 but otherwise NSF on clinical exam.
- CBC WNL Chem: CK elevated (1,265 U/L), rest WNL Free catch urinalysis: SG 1.025, Proteinuria (2+), Blood / Hemoglobin (3+), Red Blood Cells >100 HPF, Epithelial cells (1+ (1-2)/HPF), rest WNL T4 Normal Fecal Neg

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is normally distended. The urinary bladder wall appears thin, smooth, and regular. The urine is predominantly anechoic, with a small amount of mildly echogenic sediment layering dependently. The bladder neck and proximal urethra are unremarkable. There is no sonographic evidence of urolithiasis, mural inflammation, or neoplasia.

The left kidney measures approximately 3.74×2.20 cm, with a cortical thickness of 0.39 cm in the sagittal plane. The right kidney measures approximately 4.05×2.33 cm, with a cortical thickness of 0.36 cm in the sagittal plane. In both kidneys, the renal cortex demonstrates normal echogenicity relative to the liver. The corticomedullary ratio and corticomedullary definition are preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis.

### *Adrenal Glands*

The left adrenal gland measures approximately 0.36 cm. The right adrenal gland is not visualized.

### *Spleen*

The spleen measures approximately 0.70 cm in thickness. The splenic parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal lesions. The splenic capsule is smooth and regular.

### *Liver*

The liver is subjectively normal in size, with sharp margins and a regular contour. The hepatic parenchyma appears diffusely hyperechoic relative to the falciform fat, with a fine echotexture. No hepatic lymphadenopathy is identified.

The gallbladder is normally distended. The gallbladder wall is thin. The lumen contains a mild to moderate amount of biliary sludge. No dilation of the cystic duct or common bile duct is observed.



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## *Gastrointestinal*

The stomach is mildly to moderately distended, containing a small amount of ingesta and fluid. Gastric wall thickness measures approximately 1.85 mm, with preserved wall layering. The pylorus measures approximately 2.56 mm.

The duodenum measures approximately 1.39 mm.

The jejunum measures approximately 1.69 mm, with preserved wall layering:

- Mucosa: 0.95 mm, submucosa: 0.52 mm, muscularis propria: 0.25 mm

The ileum measures approximately 2.04 mm, with preserved wall layering:

- Mucosa: 0.81 mm, submucosa: 0.77 mm, muscularis propria: 0.45 mm

The ileocecal junction is not clearly visualized.

There is no sonographic evidence of inflammation, ileus, or foreign material.

Ascending colon: ~1.44 mm, largely empty. Transverse colon: ~0.91 mm and descending colon: ~1.08 mm, with very scant luminal content and minimal acoustic shadowing. No mural abnormality.

## *Pancreas*

The pancreas measures approximately 4.7 mm in thickness. Pancreatic parenchyma is isoechoic relative to the adjacent omental fat. The pancreatic duct measures approximately 0.57 mm. There is no sonographic evidence of pancreatitis or pancreatic neoplasia.

## *Peritoneal Cavity*

No abdominal effusion or sonographic evidence of peritonitis is observed. Cranial mesenteric and ileocecal lymph nodes are not visualized; the surrounding mesenteric regions appear unremarkable. The iliac trifurcation is normal.

## ULTRASONOGRAPHIC FINDINGS

- Diffusely hyperechoic liver parenchyma.
- Mild to moderate biliary sludge.
- Mild urinary bladder sediment.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This abdominal ultrasound demonstrates no focal or obstructive gastrointestinal disease. The stomach and small intestines show preserved wall thickness and layering, with no evidence of mechanical obstruction or infiltrative enteropathy. The colon appears largely empty with normal mural thickness



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and no evidence of fecal retention or colonic dilation. As such, there is no ultrasonographic evidence of constipation at the time of examination. The clinical history of hard, pebble-like stools may instead reflect intermittent constipation or a functional defecatory disorder rather than persistent colonic fecal retention.

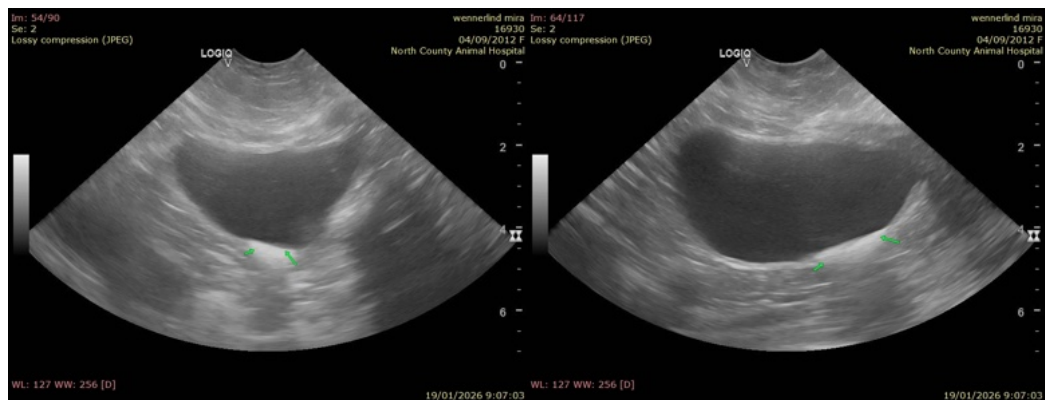
The liver appears diffusely hyperechoic, a finding that, in the context of marked obesity and otherwise normal laboratory values, is most compatible with hepatic lipidosis or vacuolar hepatopathy. The presence of biliary sludge further supports altered biliary dynamics but without evidence of obstruction or cholecystitis.

The urinary bladder contains mild sediment, which may correlate with the documented hematuria and proteinuria on urinalysis; however, no uroliths or structural bladder abnormalities are identified. Renal morphology is unremarkable, and no sonographic evidence of chronic kidney disease is observed.

Overall, the ultrasonographic findings support a functional gastrointestinal disorder and lower urinary tract irritation, with no evidence of mass lesions or advanced structural disease.

### Recommendations

- Clinical management of constipation is recommended, including dietary modification, increased hydration, and consideration of stool softeners or promotility agents as clinically indicated.
- Medical management of upper gastrointestinal signs (gastritis or reflux) may be considered, given the history of bilious vomiting and absence of structural disease on ultrasound.
- Correlation with hepatic laboratory parameters is advised, particularly in light of the diffuse hepatic hyperechogenicity, to further assess for hepatic lipidosis or vacuolar hepatopathy





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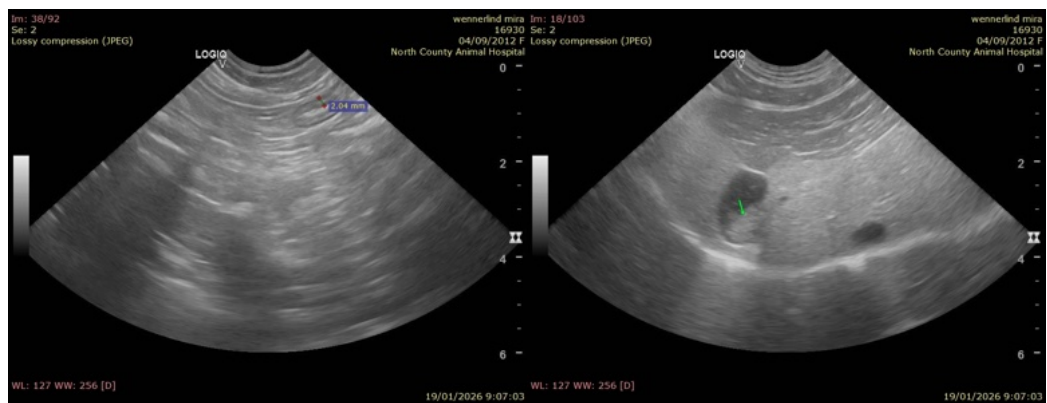
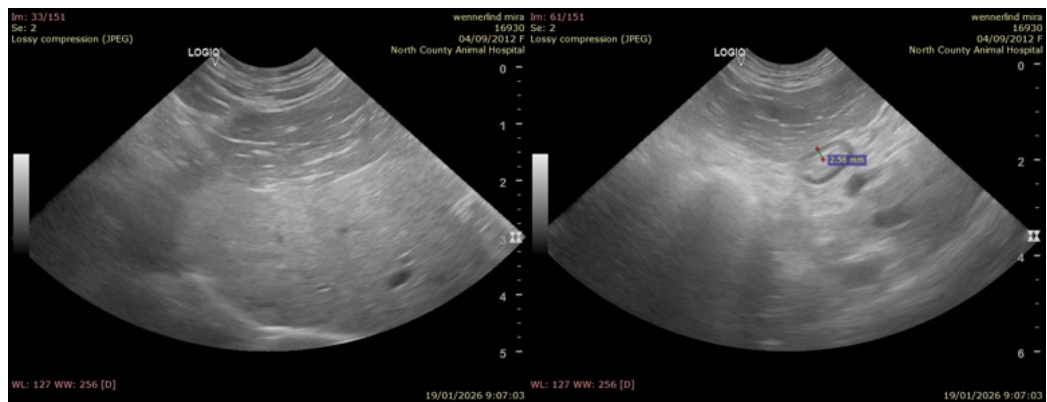
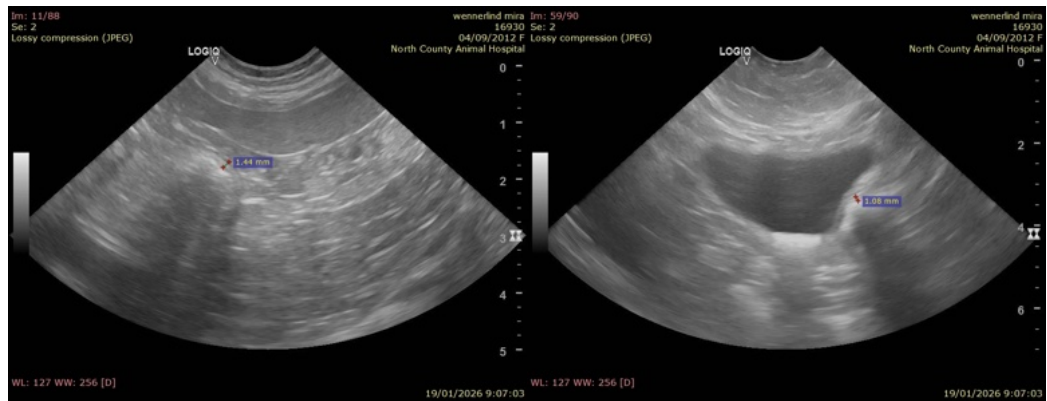
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

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