**PATIENT**

Stella Nelson

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

5.6 kg

**INTERPRETED BY**

Dr Brittany Sinclair, BVSc(hons), DACVECC

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

Hamilton Region EC

**REFERRING VET**

Dr. Diane Ho

**INVOICE**

36786

**DATE**

12/8/25

## PRESENTING CLINICAL SIGNS

History: Presented Dec 4 for pancreatitis and suspected hepatic lipidosis. Decreasing appetite over the last few weeks, rDVM BW showed Dec 3 -Hepatopathy, elevated spec fPL. P was admitted to hospital Dec 4 for supportive care - declined further diagnostics at that time. PE - dull, quiet, abdominal pain, 7-8% dehydration. NG tube placed Dec 5 for slow reintroduction of food. P becoming more grossly icteric. Demeanor much brighter though. Still not eating on her own. Has been on IVF, Maropitant, Methadone, Pantoprazole, Mirtazapine, Vit K Ondansetron.

Abnormal PE/Chem/CBC/UA Results: Recheck BW Dec 6 - Mild nonregenerative, normocytic anemia, mild hyponatremia, mild hypokalemia, mild hypochloremia, worsening hepatopathy ALT 513, ALP 834, T Bili 93, Normal PT/PTT.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, and visible pelvic urethra were of normal thickness. The ureters were not visible which is normal. There was normal wall layering with no masses, uroliths or abnormal thickening visualized. Urine was anechoic. No evidence of inflammatory or neoplastic changes were noted.

The kidneys were both normal size and structure, with smooth capsule and normal corticomedullary definition and ratio (cortex 1/3 of medulla). Medullary structure differed distinctly from that of the cortex. No evidence of pelvic dilation was present. The right kidney measured 4.38 cm in length. The left kidney measured 3.96 cm in length. There is a hyperechoic band between the cortex and medulla bilaterally. The kidneys are overall hypoechoic.

### *Adrenal Glands*

Adrenal glands were visualized on still images only. They appear to have normal shape, size, position and echogenicity for this breed and age though this could not be confirmed on cine loops. The left adrenal gland measured 0.39 cm in thickness. The right adrenal gland measured 0.34 cm in thickness.

### *Spleen*

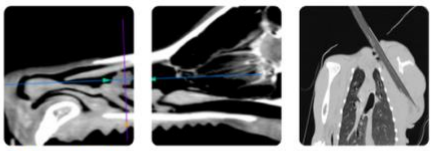
The spleen was normal with a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma and smooth capsule, with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

### *Liver*

The liver is subjectively enlarged in size with slight rounding of lobes and homogenous hyperechoic parenchyma with no specific nodules or masses. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

Gallbladder is moderately distended with normal wall thickness and anechoic contents. Common bile duct is non-distended and tapers normally.

### *Gastrointestinal*





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The stomach contains a small amount of ingesta. It measures at a normal thickness with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

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

The ileocecal junction was not visualized. 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.

### *Pancreas*

The base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour and parenchyma were normal. No overt evidence of active inflammatory or neoplastic disease was noted.

### *Lymph Nodes*

No clinically significant lymphadenopathy or abnormalities noted.

### *Free Abdomen*

There was scant free fluid between the liver lobes.

## ULTRASONOGRAPHIC FINDINGS

- Hyperechoic hepatomegaly
- Bilaterally medullary rim sign
- Scant free fluid between liver lobes

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hepatic parenchymal changes are a common finding in the face of endocrinopathies, infectious or inflammatory hepatitis (bacterial, viral, auto-immune other), hepatic lipidosis and neoplasia among other things. As elevated liver enzymes are present, fine needle aspirate is recommended to further define. Ultimately liver biopsy may be required for more definitive diagnosis.

Hepatic lipidosis is strongly suspected in this case. This can be superimposed over other disease, both hepatic and non-hepatic and this suspicion does not obviate the recommendation for liver FNA.

Treatment is supportive and involves fluid support, analgesia, and GI support as needed. Early intervention to provide enteral nutrition is imperative to recovery and placement of a semi-permanent feeding tube such as an esophagostomy tube is often required. These have the benefits of allowing medication and water administration as well and after recovery from the quick anesthesia to place, patients can often be managed at home.

To reverse the disease process and allow liver healing the patient must be taking in full RER to stop the breakdown of fats and prevent further lipid deposition in the liver. This often cannot be achieved with syringe feeding or liquid feeding through an NG tube. The disease can progress quickly leading to

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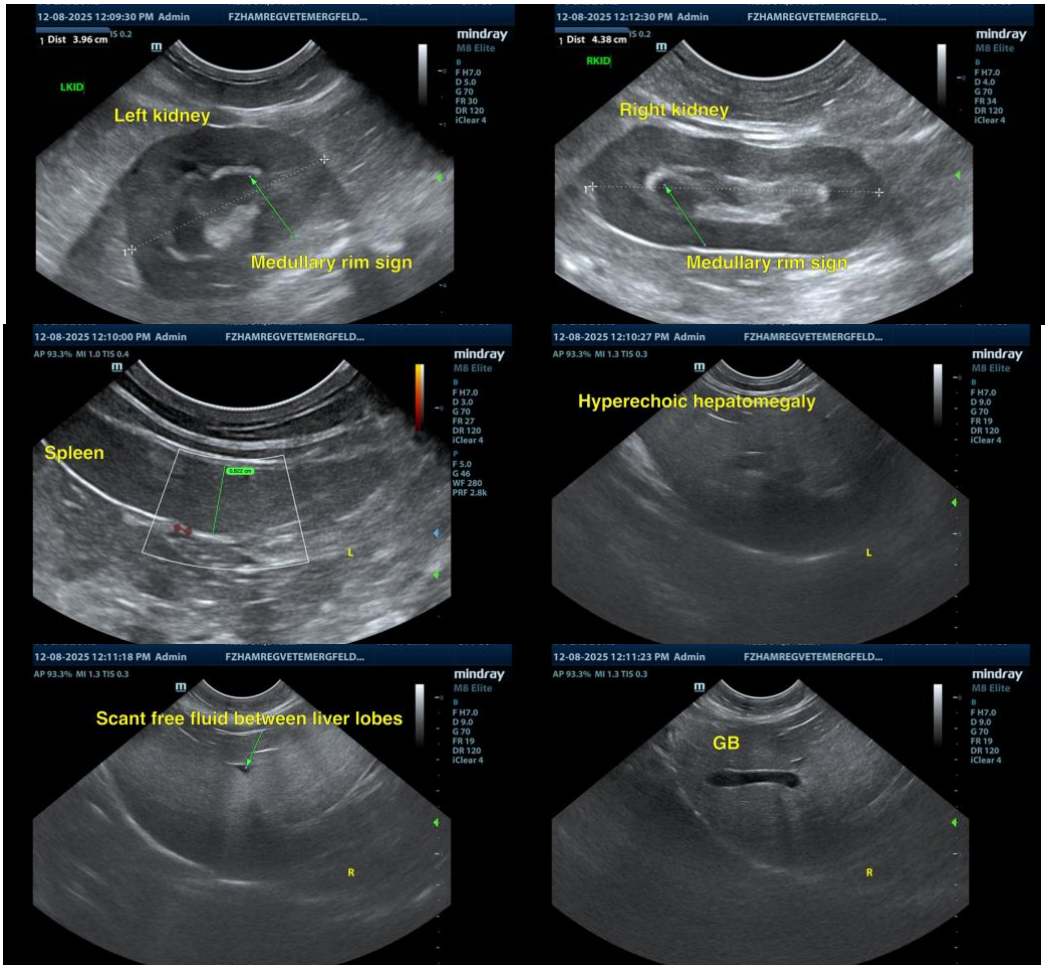
development of coagulopathy, hepatic encephalopathy, and liver failure. The patient becomes a worse anesthetic candidate the further liver dysfunction progresses. Hepatic encephalopathy can develop post anesthesia for E-tube placement in some patients, but often resolves in 24-48 hours with supportive care.

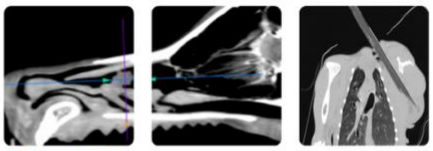
Renal changes are likely age-related degenerative changes. Medullary rim sign is nonspecific and is seen in pets both with and without significant renal disease. It can be an indication of nephritis and evaluation for proteinuria is recommended. Correlate clinical significance with blood work/urinalysis findings and clinical signs.




**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.

Dr Brittany Sinclair, BVSc(hons), DACVECC





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