

**PATIENT PRESENTING CLINICAL SIGNS**

Oliver Carrow Anorexia x 3 days, vomiting. Current meds: Ampicillin, Cerenia  
Abnormal PE/Chem/CBC/UA Results: HCT 19 (L 26); ALT (H100); ALP 1058 (H90); GGT 23 (H10); TBili 11(H0.5)

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Feline **Urinary System**

**BREED** The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Minor particulate, non-dependent sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

**SEX** Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 4.0 cm. The right kidney measured 4.0 cm.

Neutered Male  
**AGE** 7 Years  
The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

**WEIGHT** The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.35 cm. No overt pathology in the area of the left adrenal gland.

8.4 Pounds

**Spleen**

**INTERPRETED BY** The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted. The spleen measured 0.65 cm in width.

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY Liver**

Shari Reffi, CVT  
**HOSPITAL NAME** The liver presented increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size. The gallbladder wall was thickened in appearance consisting of an echogenic double rim corresponding to the inner and outer portions of the wall. This is consistent with gallbladder wall edema. Possible causes may include acute inflammation, hypoalbuminemia, right sided heart failure and anaphylaxis. The common bile duct was normal. No evidence of post-hepatic common bile duct dilation, stasis or obstruction.

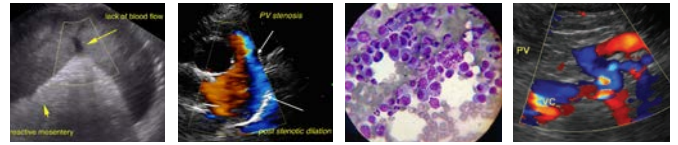
**HOSPITAL NAME** Newton Vet Hospital

**REFERRING VET** Dr. Verhalen

**INVOICE** **Gastrointestinal**  
25796 The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. Gastric body wall measured 0.25 cm.

**DATE** The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

9/24/21 Normal visible colon wall layers were present with apparent formed feces in lumen.



**PATIENT**

**Pancreas**

Oliver Carrow

The left limb of the pancreas was normal in size with mild asymmetrical contour and subtle hypoechoic to heterogeneous parenchyma compared to adjacent omentum.

**SPECIES**

**Free Abdomen**

Feline

Subtle perihepatic reactive mesentery noted along with minor perihepatic acellular free fluid. No overt lymphadenopathy.

**BREED**

**ULTRASONOGRAPHIC FINDINGS**

DSH

- Hepatomegaly with uniform echogenic parenchyma – vacuolar to cholestatic hepatic changes, chronic hepatitis/cholangiohepatitis, lipidosis or round cell neoplasia possible.

SEX

- Non-distended gallbladder with mild wall edema – non-specific, mild edema owing to portal hypertension or mild acute cholecystitis possible.

Neutered Male

- Sonographically unremarkable common bile duct – no evidence of post-hepatic obstruction

AGE

- Mildly hypoechoic to heterogeneous left pancreas – possible mild chronic active inflammation versus reactive pancreatic changes or patient variant.

7 Years

- Sonographically unremarkable gastrointestinal tract

WEIGHT

- Mild perihepatic free fluid

8.4 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultrasound guided FNA of the liver (assuming normal clotting status and using 25-gauge needle) for further clarification and primarily to assess for evidence of inflammatory cells or neoplasia recommended. Vitamin K administration recommended prior to FNA if elected. Without evidence of gastrointestinal mural changes, the vomiting in this patient is suspected to be owing to hepatic disease. Infectious disease testing could be considered given the anemia. Empirically, medical therapy for potential cholangiohepatitis with non-obstructive cholestasis and as-needed gastrointestinal support with monitoring of anemia would be reasonable. 3-view chest radiographs recommended to rule out occult thoracic pathology.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

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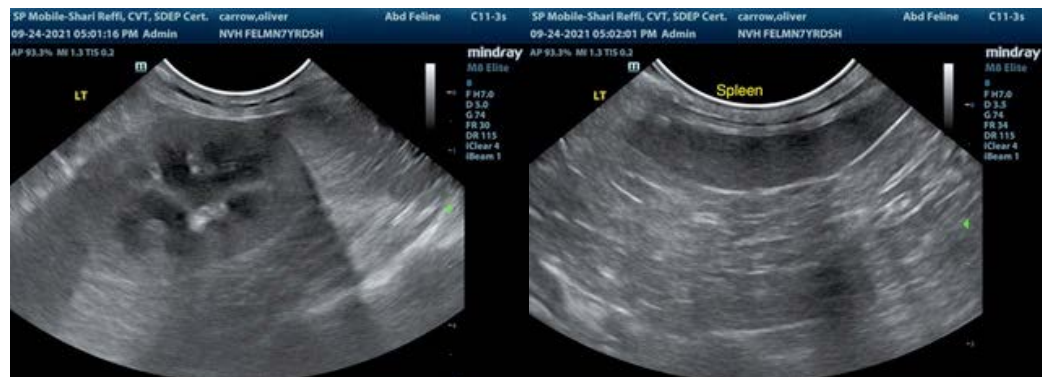
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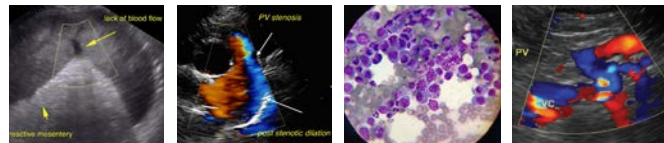
**INVOICE**

25796

**DATE**

9/24/21





**PATIENT**

Oliver Carrow

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

8.4 Pounds

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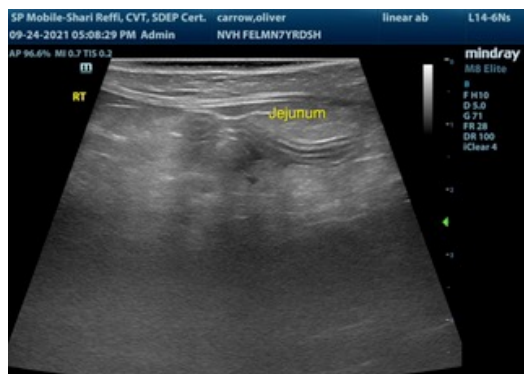
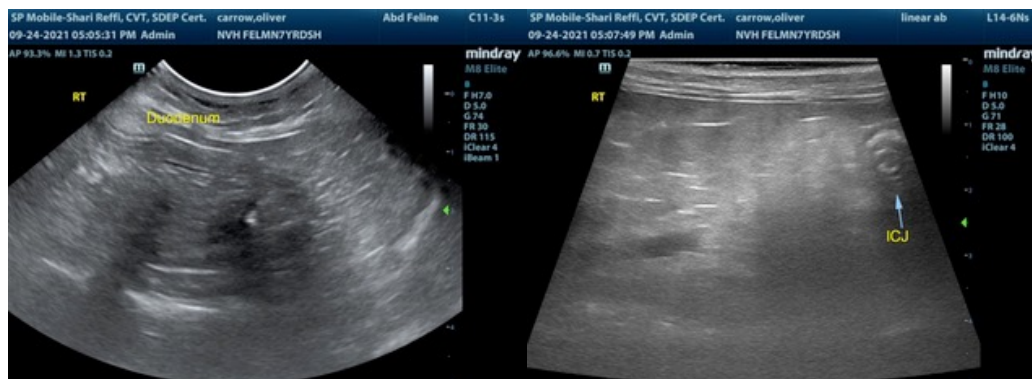
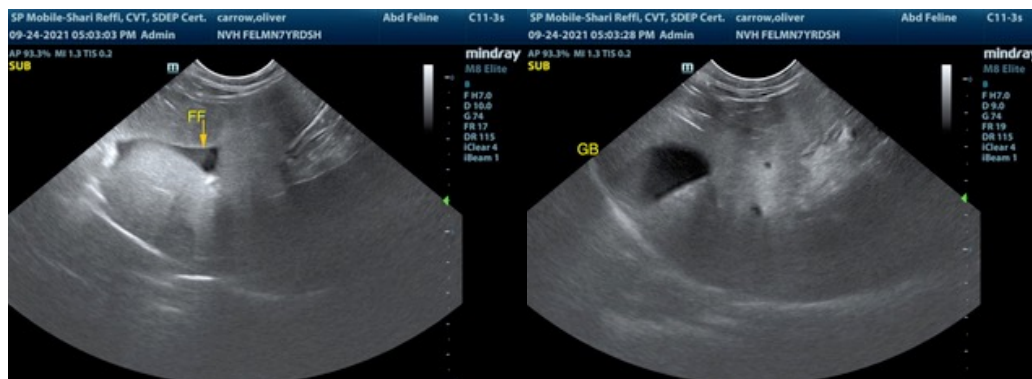
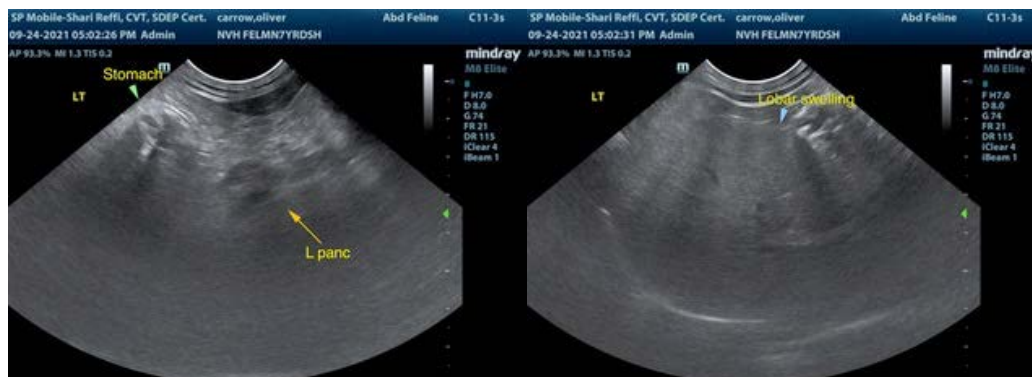
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**PATIENT**

Oliver Carrow

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

**SPECIES**

Feline

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com

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DSH

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

8.4 Pounds

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