

**PATIENT PRESENTING CLINICAL SIGNS**

Rhino Manton

**SPECIES**

Feline

**BREED**

DMH

**SEX**

Neutered Male

**AGE**

10 Years

**WEIGHT**

6.4 kg

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Sultan

**INVOICE**

43126

**DATE**

12/1/22

First presented on 11/24/2022 for lethargy, inappetence, uncomfortable on abd palpation and had vomited once. AU - mild erythema of pinna w/ mild wax. Mild -moderate periodontal disease throughout mouth. Dental tartar & callous Mild discomfort upon abdominal palpation in general, no focal pain. Lethargic & inappetence P has hx of Pancreatitis & gastritis No C/S/V/D/PU/PD or any health concern. Doing well during PE. QAR, MM: pink, moist CRT: 2 sec. Euhydrated, normal skin turgor. Sent home with Mirtazapine, Gaba and Metro, O declined Diagnostics at this time. 11/30/2022: Recheck -P unable to keep any food down for last 2 days and O unable to give meds -Much more uncomfortable on abd palpation -Not eating for 3 days Mirtazapine, Gaba, Metro (O having a hard time giving them and P usually vomits them up when given)

Abnormal PE/Chem/CBC/UA Results: Further rads/bloodwork/diagnostics declined.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney measures 3.98 cm and is significantly irregular in shape, likely due to previous infarct. There is mild pyelectasia at 0.28 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths or hydroureter. Renal vasculature is normal.

The right kidney measures 4.57 cm and is significantly irregular in shape, likely due to previous infarcts. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**Liver**

The liver is large in size, and hypoechoic with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.



**PATIENT**

Rhino Manton

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The proximal bile duct appears dilated and tortuous, measuring approximately 0.38 cm. No obvious obstruction is visualized and it cannot be followed more distally.

**SPECIES**

Feline

**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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.

**BREED**

DMH

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.27 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

**SEX**

Neutered Male

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. 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.

**AGE**

10 Years

**Pancreas**

There is a large, multiloculated cystic structure in the region of the caudal left limb of the pancreas. This structure measures >3.18 cm x 6.75 cm. I suspect this tissue is originating from the left limb of the pancreas, although other possibilities such as an omental cyst, etc. are possible. The right limb of the pancreas appears relatively normal. There is a large amount of inflammation around the cystic structure.

**WEIGHT**

6.4 kg

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**Free Abdomen**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation.

**IMAGING PERFORMED BY**

Crystal Hill

There is significant abdominal inflammation, particularly around the large cystic structure.

**HOSPITAL NAME**

BPH Burlington

**ULTRASONOGRAPHIC FINDINGS**

- Irregularly shaped kidneys with decreased corticomedullary distinction – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. The irregularity of the kidneys is likely due to previous infarcts.
- Large, irregular cystic structure visualized in the region of the caudal left limb of the pancreas – I'm concerned this could be of pancreatic origin (pancreatic duct cyst, pancreatic adenoma, carcinoma, etc.).
- Large, hypoechoic, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Distended gallbladder with dilated, tortuous bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile

**REFERRING VET**

Dr. Sultan

**INVOICE**

43126

**DATE**

12/1/22



**PATIENT** duct tumor, pancreatic disease, other).

- Rhino Manton
- Prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

**SPECIES**

Feline

**BREED**

DMH

**SEX**

Neutered Male

**AGE**

10 Years

**WEIGHT**

6.4 kg

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Sultan

**INVOICE**

43126

**DATE**

12/1/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is a large, multiloculated cystic structure visualized caudal to the spleen in the region of the caudal left limb of the pancreas. I'm concerned this could be pancreatic in origin, possibly a pancreatic duct cyst, pancreatic cyst, other, and there could be a benign or neoplastic process underlying. Additionally, I can't exclude the possibility of origination from another structure. More cranially, the pancreas appears relatively normal.

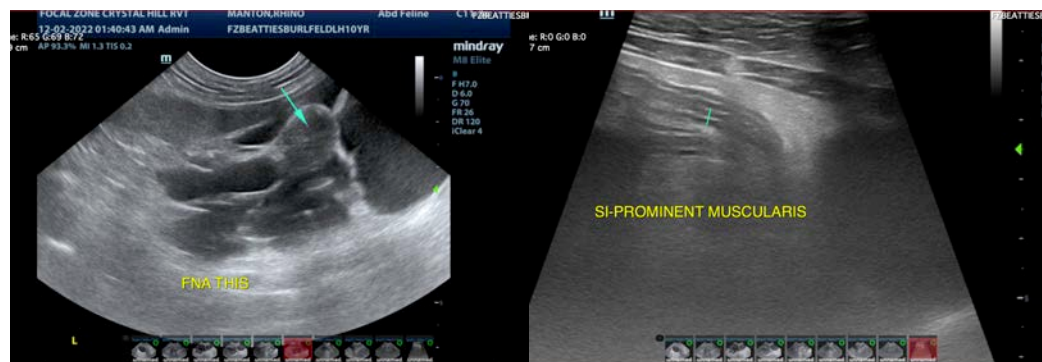
The liver appears large, hypoechoic, and heterogeneous. This is a non-specific finding. The gallbladder is somewhat distended with a dilated bile duct with no obvious obstruction.

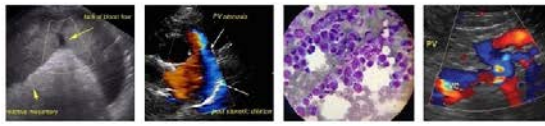
I would recommend referral to a veterinary surgeon for possible exploratory surgery and possible resection of the abnormal tissue. In an ideal situation, a contrast CT scan would be done prior to this, as some pancreatic lesions can have significant adhesions and risk for leakage of pancreatic fluid/enzymes, etc.

Additionally, you could consider sampling of the cystic fluid for both fluid analysis, cytology, and an amylase and lipase, as this may help to better determine its origin and rule out an abscess, etc. Additionally, you could consider a fine needle aspirate of the solid tissue towards the center of the lesion, with the knowledge that leakage of this fluid into the abdomen could be very inflammatory.

Both kidneys appear severely irregular and have decreased corticomedullary distinction. Correlate this with urinalysis, specific gravity, blood pressure, and culture to better determine renal function, etc.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





**PATIENT**

Rhino Manton

**SPECIES**

Feline

**BREED**

DMH

**SEX**

Neutered Male

**AGE**

10 Years

**WEIGHT**

6.4 kg

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING  
PERFORMED BY**

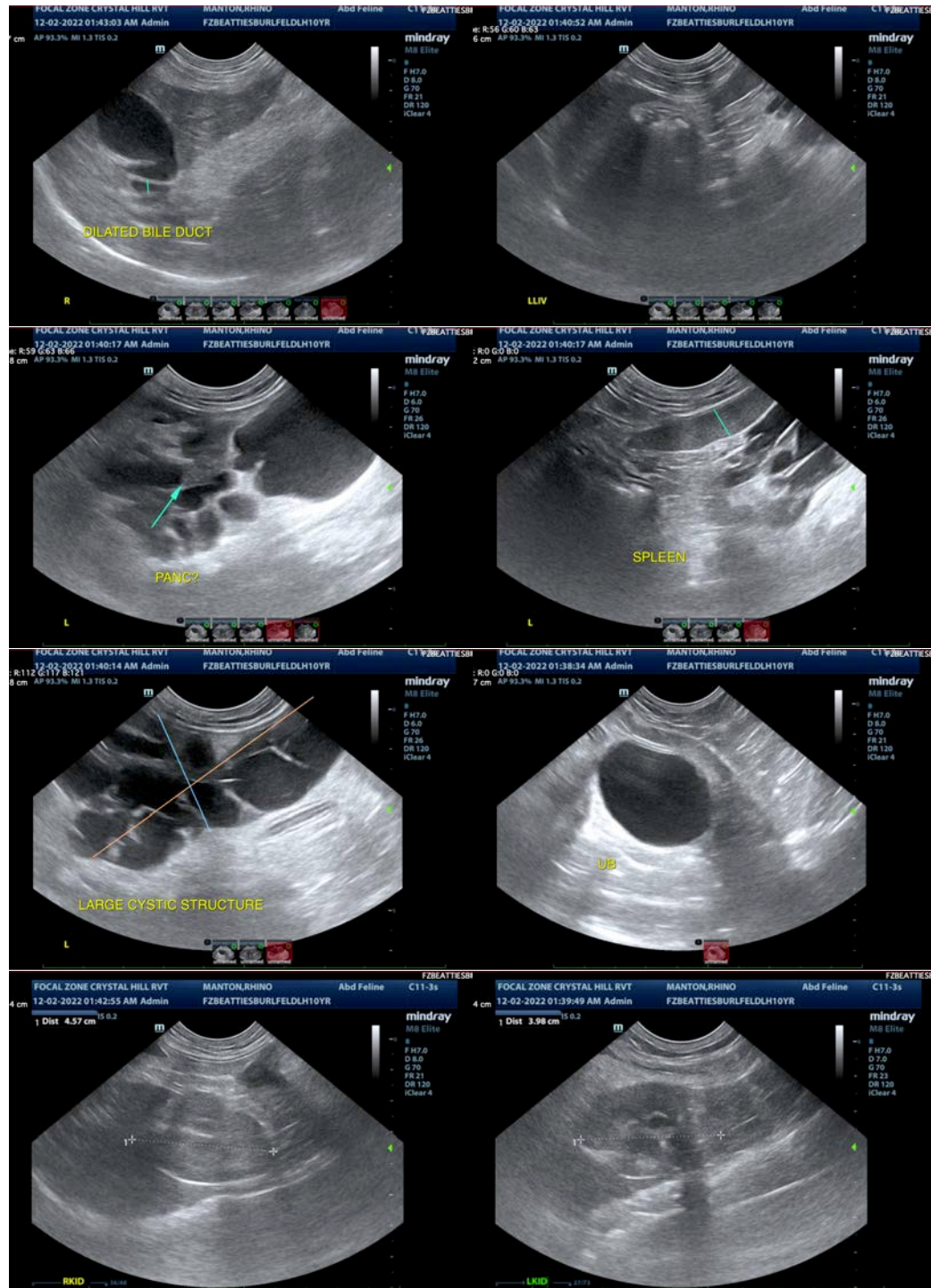
Crystal Hill

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Sultan



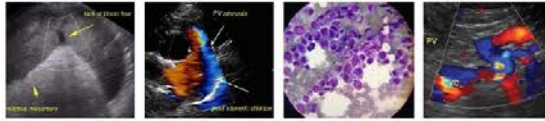
**INVOICE**

43126

**DATE**

12/1/22

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.



**PATIENT**

Rhino Manton

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

**SPECIES**

Feline

kathleen.sennello@sonopath.com

**BREED**

DMH

**SEX**

Neutered Male

**AGE**

10 Years

**WEIGHT**

6.4 kg

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING  
PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Sultan

**INVOICE**

43126

**DATE**

12/1/22