

**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Minshka Linton Sedation Butorphanol- New found heart murmur, grade I/VI very focal. Also has history of intermittent chronic vomiting. Prior AUS was unremarkable with only mild kidney changes (completed at specialty hospital), this is a recheck to ensure no further concerns. Physiologic vs. Cardiomyopathy for heart murmur, food allergy, IBD or GI LSA for chronic vomiting.

**SPECIES** Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** DSH  
*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.

**SEX**

Spayed Female

**AGE**

October 15, 2014

**WEIGHT**

3kg

The left kidney is small and slightly irregular in size (2.02 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. The proximal ureter appears significantly dilated measuring at 0.8 cm. There is a focal narrowing and a second smaller dilation visualized measuring 0.46 cm with some echogenic material visualized within the ureter, most consistent with echogenic debris. There is no evidence of pyelectasia, nephroliths, or infarcts. Renal vasculature is normal.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (3 cm) with a 0.86 cm cystic lesion. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is pyelectasia at 0.25 cm. The proximal ureter is slightly prominent at 0.33 cm. There is no evidence of nephroliths or infarcts. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal in size measuring 0.42 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques,  
LVT

The right adrenal gland is normal in size measuring 0.42 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Incline Veterinary  
Hospital

*Spleen*

The spleen is subjectively normal in size (0.76 cm), 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.

**REFERRING VET**

Dr. Mulchi

*Liver*

**INVOICE**

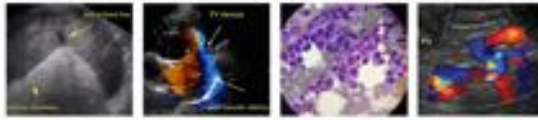
10250

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

**DATE**

6/12/2023

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 cystic and common bile ducts are normal/not visible.



**PATIENT**

Minshka Linton

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

October 15, 2014

**WEIGHT**

3kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

Incline Veterinary  
Hospital

**REFERRING VET**

Dr. Mulchi

**INVOICE**

10250

**DATE**

6/12/2023

**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.

The visualized areas of duodenum, jejunum, and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis: mucosa layer ratio. The jejunum measured as normal (0.17 cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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.

**Pancreas**

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**Free Abdomen**

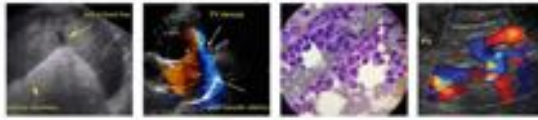
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

**PRIMARY FINDINGS**

- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with a chronic degenerative disease or interstitial nephrosis.
- Segmental dilation of the proximal left ureter with intraluminal debris. These changes could be consistent with pyelonephritis, a stricture, or less likely a neoplastic process.
- Hypoechoic prominent left limb of the pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis, or chronic pancreatitis.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There are mild changes of observed associated with both kidneys, consistent with age related renal disease. Additionally, the left kidney has segmental dilation of the proximal ureter with what appears to be some intraluminal debris. These findings could be consistent with pyelonephritis and/or a proximal stricture. No obvious stones or mineralized structures are visualized. Correlate with abdominal radiographs. A contrast study would likely be necessary to further evaluate this region "contrast CT scan". Recommend a urine analysis and culture and blood pressure evaluation. Options moving forward would include advanced imaging or serial imaging with ultrasound to determine if this lesion is progressing.



**PATIENT**

Minshka Linton

A definitive cause for the chronic vomiting is not visualized. It could be related to kidney disease or to primary gastrointestinal disease, as it is not uncommon to have significant gastrointestinal disease with relatively minimal ultrasonographic findings.

**SPECIES**

Feline

Consider such differentials as food allergy/dietary intolerance, GI parasitism, chronic pancreatitis, IBD, and less likely neoplasia, etc.

**BREED**

DSH

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI, etc. to further evaluate for pancreatic/small intestinal disease.

**SEX**

Spayed Female

- Recommend chronic probiotic therapy.
- If chronic vomiting persists and it is thought unlikely to be related to the kidney disease present, consider obtaining GI biopsies.

**AGE**

October 15, 2014

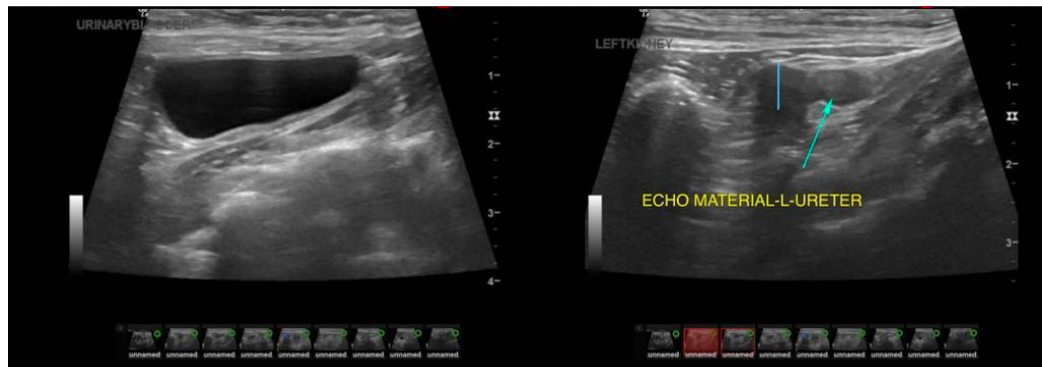
Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

**WEIGHT**

3kg

**INTERPRETED BY**

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



**IMAGING PERFORMED BY**

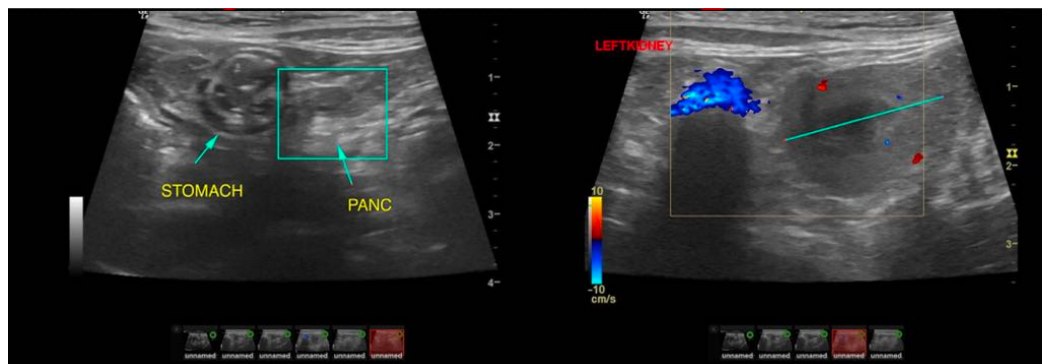
Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

Incline Veterinary  
Hospital

**REFERRING VET**

Dr. Mulchi



**INVOICE**

10250

**DATE**

6/12/2023



**PATIENT**

Minshka Linton

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

October 15, 2014

**WEIGHT**

3kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

Incline Veterinary  
Hospital

**REFERRING VET**

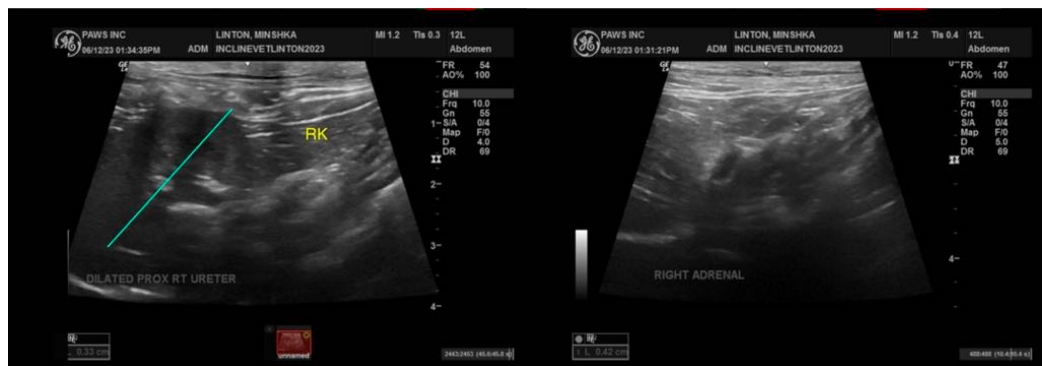
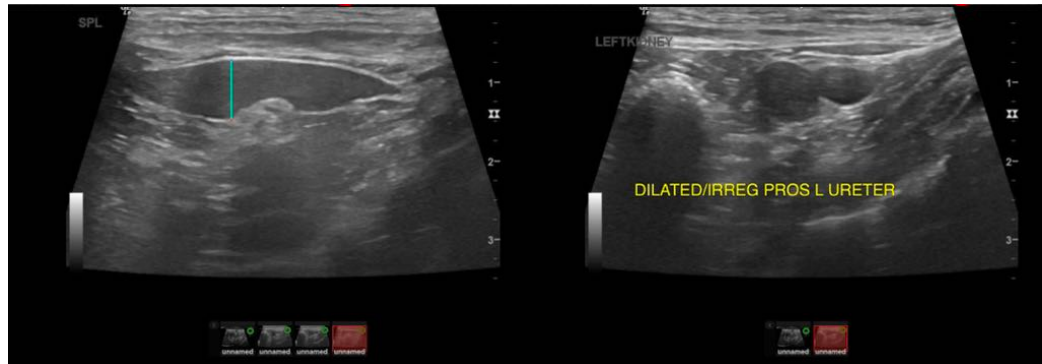
Dr. Mulchi

**INVOICE**

10250

**DATE**

6/12/2023



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.

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

info@sonopath.com