

**DATE PRESENTING CLINICAL SIGNS**

12/1/22

PATIENT

London Jacobs

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

10/10/05

WEIGHT

7.09 Pounds

INTERPRETED BY

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(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

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RDMS, RVT

HOSPITAL NAME

Fullerton AH

REFERRING VET

Dr. Durastanti

INVOICE

43131

History of HTN and CKD. Treated for pollakiuria and hematuria for x3 wks with very minimal response. UA showed USG 1.013 and marked RBC's. Labs showed significant azotemia (chronic) with mild hyperphosphatemia. Rads showed mild mineralization in both kidneys. No evidence of bladder stones. Given P's underlying conditions we have been more conservative with empirical tx, including increasing wet food and water intake, gabapentin, cerenia, and clavamox. Most recently, have put P on a trial of prazosin. Minimal improvement and still goes into the litter box every 30-45 minutes at times. P is urinating in very small amounts with each attempt.

Current Medications: Previous medications: Clavamox 62.5mg PO Q 12 hours for 10 days (starting 10/25, has now been discontinued), Cerenia 8mg PO Q 24 hours (starting 10/25, has now been discontinued)
Current medications: Gabapentin 25mg PO Q 8 hours (starting 10/25)
Prazosin 1mg PO Q 12 hours (starting 11/16)
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is mildly distended with anechoic urine. The Bladder wall is diffusely thickened and irregular with a focal area at the ventral wall that is severely thickened, measuring 1.05 cm in thickness. This thickening and irregularity extend to the level of the ureteral papilla and trigone. The visible urethra appears relatively normal with no focal masses or calculi visualized. Findings are concerning for a bladder mass.

The left kidney has a normal shape and size (3.27 cm) with pyelectasia at 0.18 cm and non-obstructive nephroliths. 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 infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.27 cm) with pyelectasia at 0.27 cm and non-obstructive nephroliths. 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 infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.36 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.

The right adrenal gland is normal in size measuring 0.38 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.

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 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.

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.

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 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. Duodenum wall measures 0.28 cm. Jejunum wall measures 0.20 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild to moderate pancreatitis. Pancreatic duct is prominent at 0.32 cm.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent mesenteric lymph nodes. One such lymph node is visualized at 0.33 cm. The omentum is slightly hyperechoic around the very prominent pancreas.

ULTRASONOGRAPHIC FINDINGS

- Thickened, irregular bladder wall with focal severe thickening – Findings are concerning for a possible bladder mass effect, although other differentials are possible.
- Decreased corticomedullary distinction in both kidneys with mild pyelectasia and non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Prominent, large, hypoechoic pancreas with prominent pancreatic duct and mild surrounding mesenteric inflammation – Findings could be consistent with mild to moderate pancreatic inflammation or possibly resolving inflammation.
- 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.

- Prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

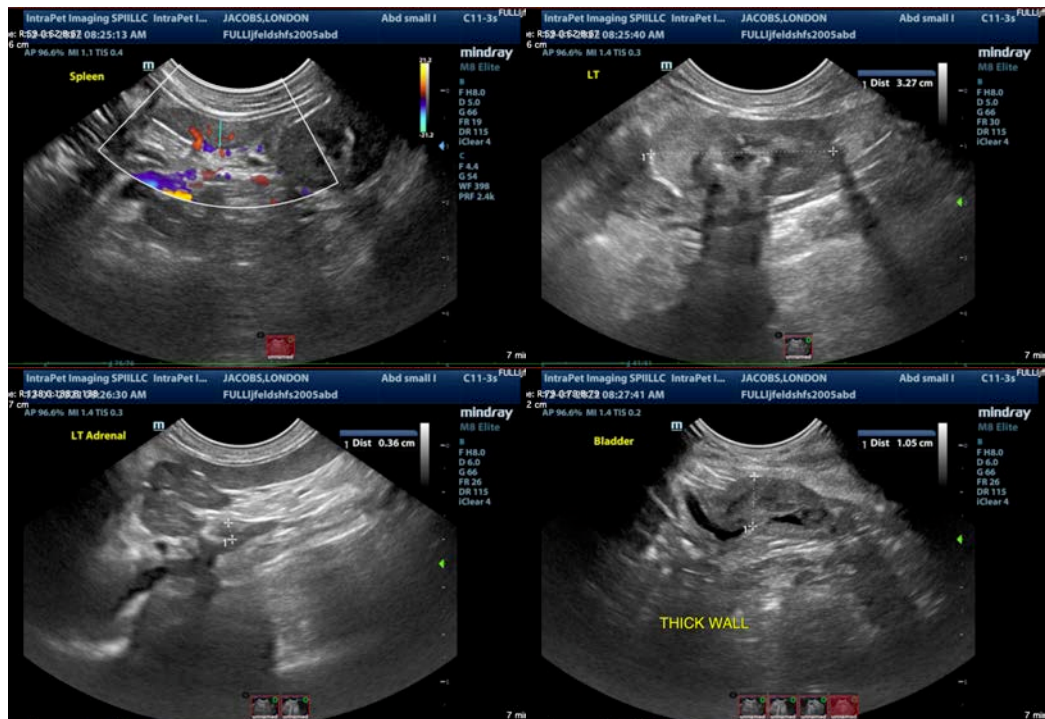
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

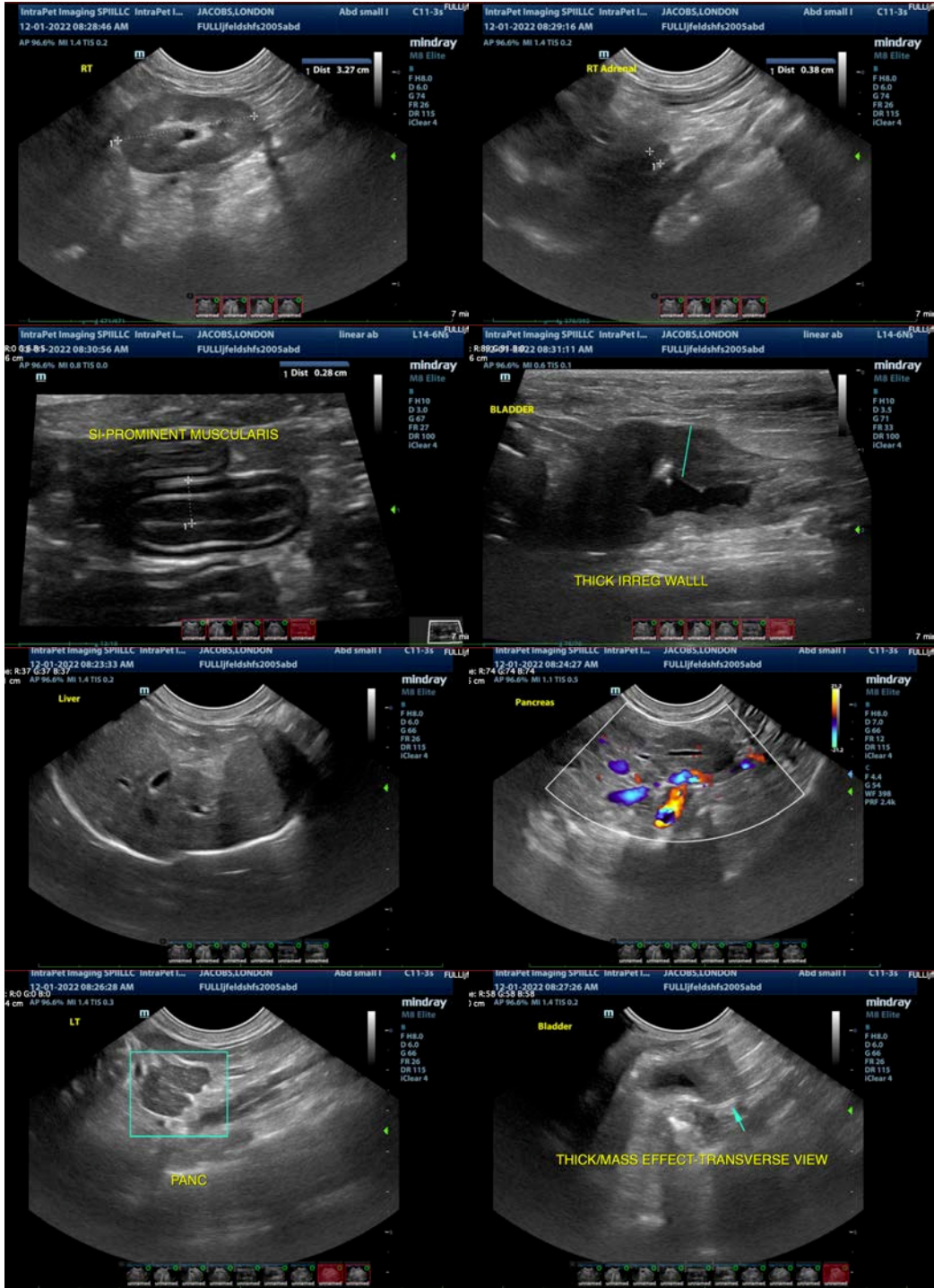
The bladder wall is thickened and irregular with a focal area that is particularly thickened and concerning for a possible mass effect. Options for diagnosis include a traumatic catheterization, a biopsy of the bladder wall, and occasionally a fine needle aspirate of the bladder wall can be considered provided the owners know the risk of seeding the abdomen with neoplastic cells. Adequate evaluation of the bladder is difficult due to lack of urine distention.

The changes in the kidneys are most consistent with chronic progressive renal disease, and there could be a component of increased resistance due to the thickening of the bladder wall.

The pancreas is very prominent and hypoechoic, and there is a prominent muscularis layer to the small intestine. In the absence of reported GI signs, the significance of this is unclear. If GI signs are present, consider additional evaluation for potential gastrointestinal/pancreatic disease.

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





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.

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