

**DATE**

6/30/22

**PRESENTING CLINICAL SIGNS**

Straining to urinate, urinating frequently, not responding well to antibiotics or anti-inflammatory.

Current Medications: Onsior, Zeniquin, Metronidazole.

Radiographs : Thickened bowel, scattered mineral density throughout all bowel loops (intra or extra luminal?)

possible bladder stone (vs overlap bowel), square-shaped bladder apex.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brilhart, RDMS.

**PATIENT**

Tommy Heinritz

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

11/18/15

**WEIGHT**

15.6 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**HOSPITAL NAME**

Bayside Animal  
Medical Center

**REFERRING VET**

Dr. DeLozier

**INVOICE**

31379

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. The bladder revealed sand accumulation with a grouping of which measuring 1.5 cm. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.61 cm. The left kidney measured 4.5 cm.

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.44 cm. The right adrenal gland measured 0.43 cm.

**Spleen**

The spleen in this patient was uniform, yet volume contracted. Hydration status should be assessed.

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder was slightly folded in this patient.

**Gastrointestinal**

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. Intestinal wall thickness measured up to 0.52 cm with hypertrophied muscularis. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

### **Pancreas**

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

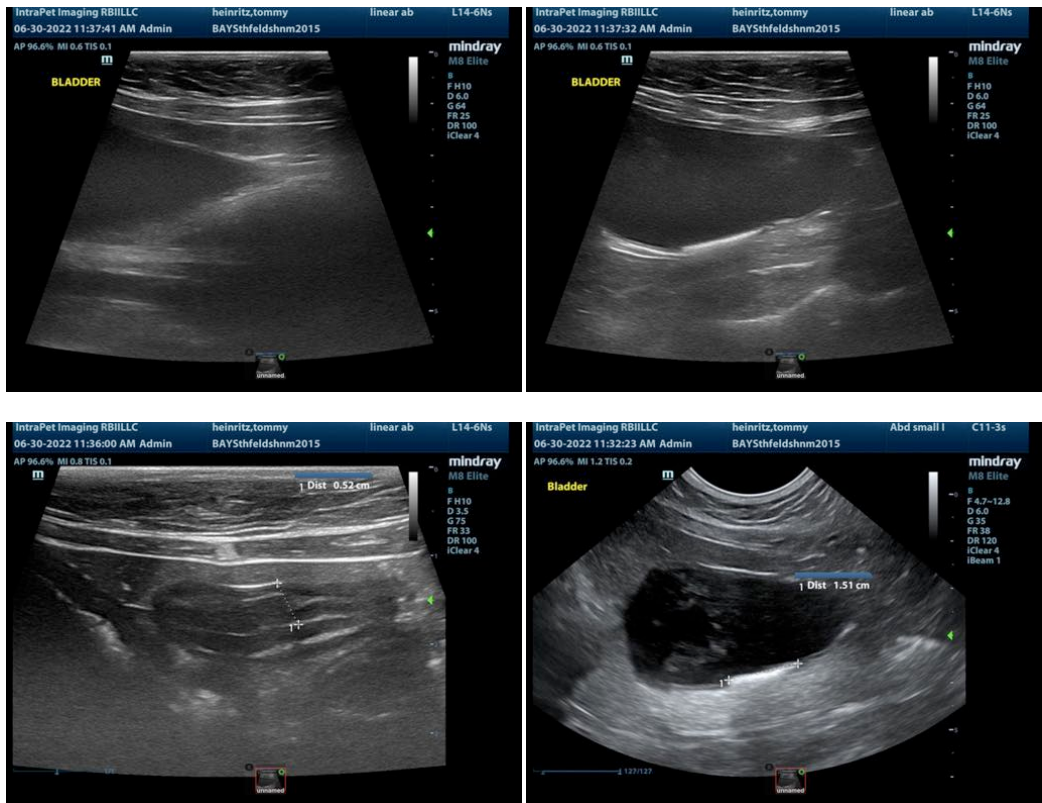
### **ULTRASONOGRAPHIC FINDINGS**

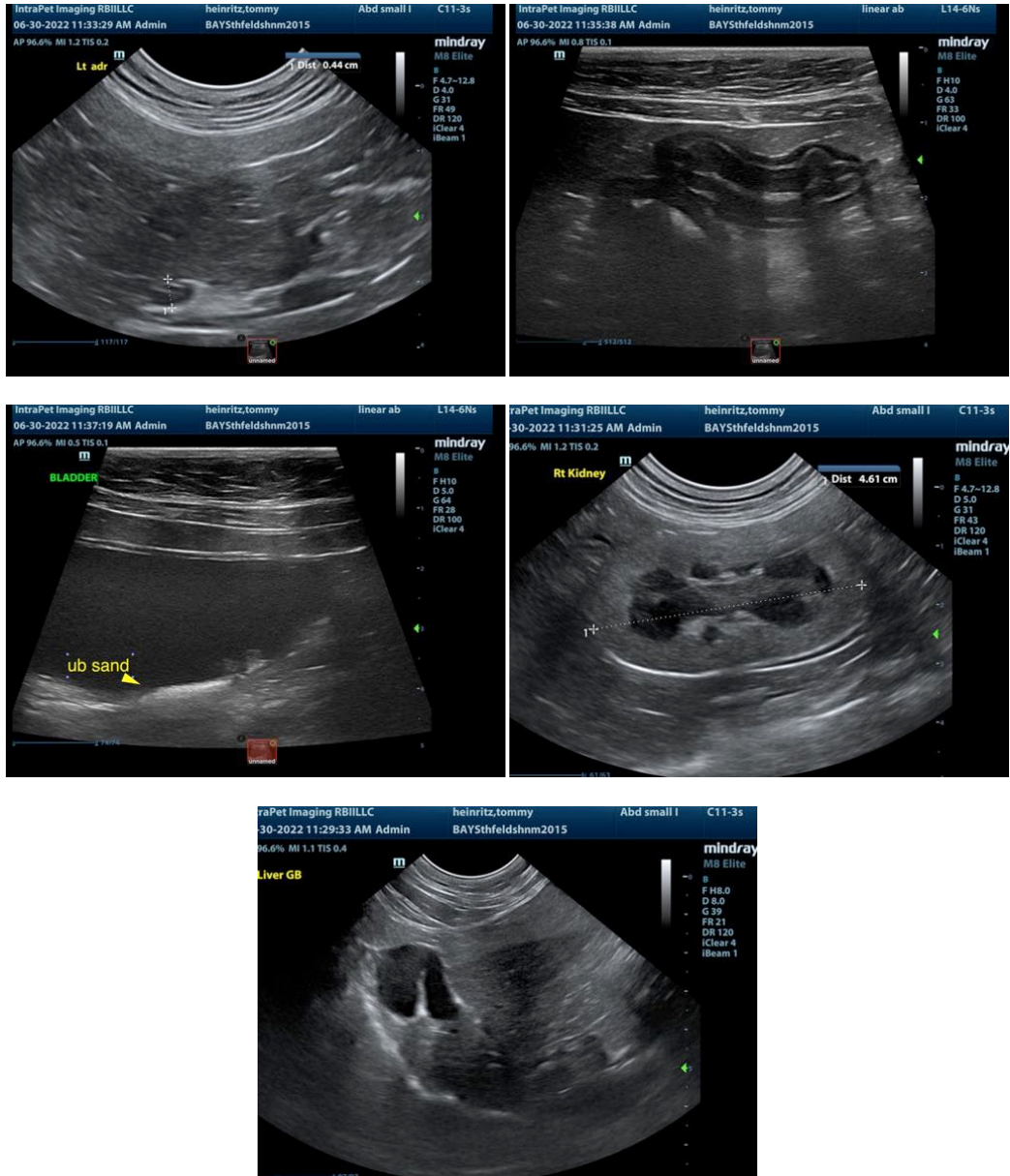
Variable intestinal thickening. No loss of mural detail or neoplastic criteria. However, underlying inflammatory bowel is likely.

Bladder sand. The patient is likely obstructing periodically.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Medical management for sand dissolution or cystotomy, sand analysis and intestinal biopsies would both be valid approaches. However, if cystotomy is to be performed a sonogram just prior to surgery is recommended to ensure that the bladder sand has not dissolved, which can periodically occur. Environmental stressors and UTI should be ruled out as well.





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.

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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