



**DATE**

8/22/22

**PATIENT**

Elvis Smith

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

4/26/13

**WEIGHT**

9.4 lbs

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**HOSPITAL NAME**

Fullerton AH

**REFERRING VET**

Dr. Dobbin

**INVOICE**

32435

**PRESENTING CLINICAL SIGNS**

Pt used to weigh 13lb. In June 2022 noted to be 9.6lb - unintentional weight loss. Labwork at that time showed elevated Globulin level at 7.1 and hematuria, but otherwise unremarkable. Pt has history of mild asthma (no meds). Pt used to live with multiple other cats and seemed stressed, was defecating outside the box. Now pt living alone and seems more comfortable but has not regained weight despite eating well. No GI symptoms, has good appetite. Friskies canned BID + Purina Naturals dry.

Current Medications: None.

Lab Results: June 2022: Elevated Globulin 7.1, Hematuria 21-50/hpf

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia and no mineral observed. There is no infarct in the right kidney. There is however, a chronic infarct in the cranial pole of the right kidney. The left kidney measured 3.36 cm and the right kidney measured 3.75 cm.

**Adrenal Glands**

Left adrenal gland is normal in size (0.33 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.4 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### ***Gastrointestinal***

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of very mildly thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- **Coarse splenomegaly** – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- **Very mild inflammatory bowel disease (IBD) pattern** – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- **Chronic active pancreatitis** is suspected with an acute on chronic process unable to be ruled out.
- **Reactive mesenteric lymph nodes** – Lymph node(s) is(are) prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

### **Secondary Findings**

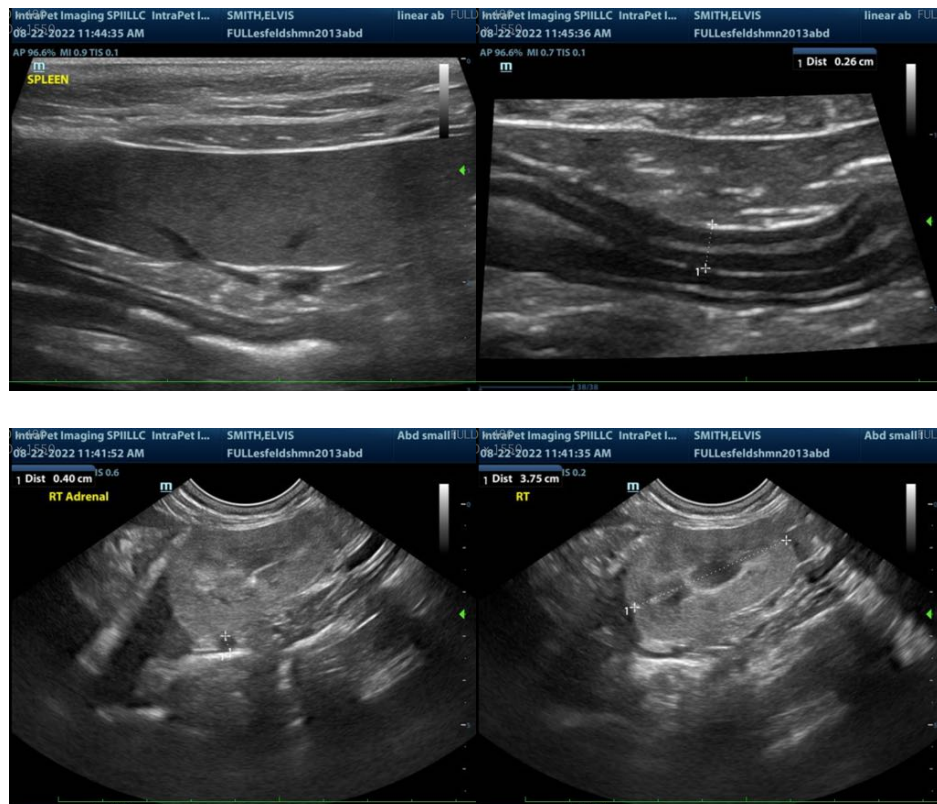
- **Age related renal changes** with a chronic infarct in the right kidney.

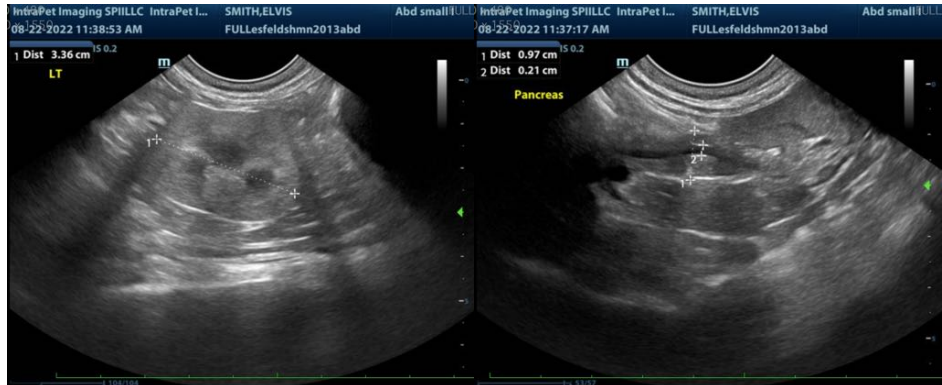
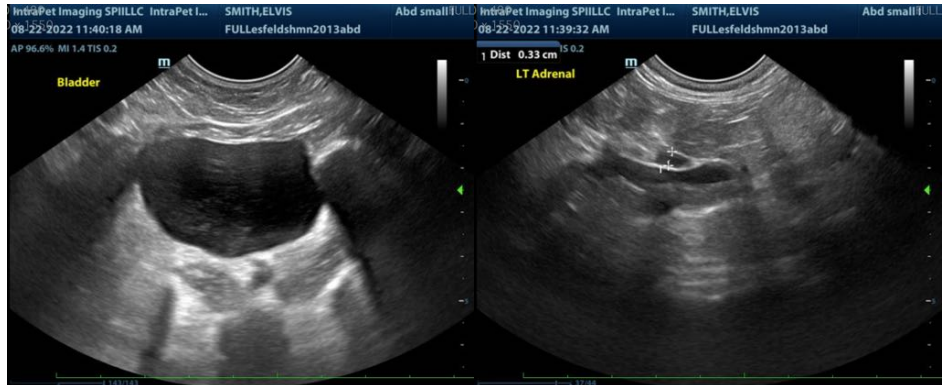
- **Urinary bladder debris**
- **Gallbladder debris (feline)** – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Given the historically increased high globulins recommendations include rechecking that level and if the globulin count is still high serum electrophoresis can be considered to help further differentiate a possible neoplasia i.e. lymphoma pattern versus a chronic inflammatory disease pattern. The changes in the abdomen trend towards the benign; however, if a high globulin count is persistent FNA of the spleen is recommended if the patient's coagulation status is appropriate to further investigate possible infiltrative neoplasia such as lymphoma. Given the patient's weight loss with a normal appetite a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. T4 and free T4 are recommended if not recently evaluated. In the meantime, diet transition could be considered to see if a novel or hydrolyzed protein diet helps this patient put on weight with careful owner education about appropriate caloric intake as a new diet is introduced to assure adequate caloric intake.





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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