

Sophie Skinner

## PRESENTING CLINICAL SIGNS

### SPECIES

Feline

### BREED

DMH

Feline DMH DOB 5/23/20 FS BW 12# Chronic hematuria, has intermittent eosinophilic granuloma lesions on face and neck. Lesions healed with methylpred and clavamox. Hematuria present since 4/12/21. No UTI evident on UA performed 5/21 but urine SG very high. Xrays done in 4/21 no obvious bladder stones. Owner started her on RC SO diet 11/21. Offers Purina hydracare to encourage water consumption. Cat is fractious here in clinic and occasionally at home with owner. sedated dexdormitor/torb and gabapentin Submitted blood for feline TLI and urine for culture to Idexx today.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### SEX

Spayed Female

### AGE

5/23/20

### WEIGHT

12 Pounds

### Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears diffusely thickened and slightly irregular, particularly in the apical portion of the urinary bladder, where the bladder wall measures at 0.45 cm. Additionally, there is suspended hyperechoic, echogenic debris within the urinary bladder and shadowing sandy debris in the dependent portions of the urinary bladder. The 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 has a normal shape and size (4.45 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
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The right kidney has a normal shape and size (4.42 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### Adrenal Glands

The left adrenal gland is normal in size measuring 0.31 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 BY

Loetitia Saint-Jacques,  
LVT

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.

### HOSPITAL NAME

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### Spleen

The spleen is normal/borderline large in size (1.4 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. Peggy Roberts

### Liver

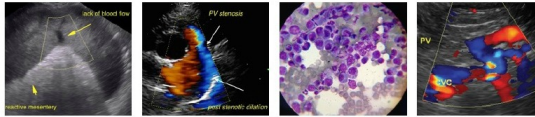
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

### INVOICE

35574

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2/9/22



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**SPECIES**

Feline

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. In some areas, the bile duct appears somewhat prominent and dilated, most notably at the level of the common bile duct at 0.50 cm. No apparent obstruction is visualized.

**BREED**

DMH

**Gastrointestinal**

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

**SEX**

Spayed Female

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 duodenum measured as normal (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

**AGE**

5/23/20

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.

**WEIGHT**

12 Pounds

**Pancreas**

The pancreas is mildly 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.

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**Free Abdomen**

There is a scant pocket of free fluid in the area of the spleen. No free fluid is visualized anywhere else in the abdomen. There are occasional prominent mesenteric lymph nodes visualized. Sublumbar lymph nodes measured 0.5 cm and 0.4 cm, respectively. The mesenteric lymph nodes were visualized measuring 0.42 cm and 0.32 cm. There is no evidence of increased echogenicity of the omentum.

**IMAGING BY**

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**Other**

A brief view of the heart was submitted. No significant pericardial effusion was seen.

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**PRIMARY FINDINGS**

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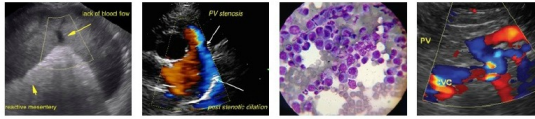
- Thickened, irregular apical wall of the urinary bladder with suspended and dependent hyperechoic echogenic debris – These findings would be most consistent with cystitis and sandy mineralization in the urinary bladder. Correlate findings with bacterial culture, sensitivity and urinalysis.
- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

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- Borderline large spleen – The spleen appears normal, but measures as mildly enlarged. This could be within normal limits for this big cat.

**SECONDARY FINDINGS**

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mildly dilated common bile duct – Significance of this is currently unclear, as no obstruction is noted, and dilation is not evident in all areas.
- Moderate ingesta within the gastric lumen – Correlate with feedings history and abdominal radiographs. If adequately fasted then consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none visualized).
- Small pocket of free abdominal fluid adjacent to the spleen – The significance of this is unclear, and there is no evidence of free fluid visualized in other areas of the abdomen. Consider continued monitoring.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The changes observed in the urinary bladder are diffuse and most consistent with cystitis.

- Recommend urinalysis and culture.
- If culture is negative and no bacteria are seen on urinalysis, then interstitial cystitis could be considered, or less likely a neoplastic process.
- If feline interstitial cystitis is suspected, this can be a frustrating process, as there is no “one fits all” approach, and no long-term cure. Goals of therapy include reduction of severity and duration of clinical signs during the acute episode. Numerous therapies can be considered including diet, multi-module environmental modification, analgesics, anti-inflammatories, anti-anxiety medications, etc.
- If symptoms are progressing, consider reimaging or biopsy of the urinary bladder wall with histopathology and culture.

There are numerous other subtle lesions described on today’s exam. I suspect these are primarily incidental findings. The spleen measures as enlarged, but appears largely normal in this large cat. If systemic disease is considered likely, then a fine needle aspirate could be considered. The significance of the small pocket of fluid around the spleen is unknown and should be monitored.



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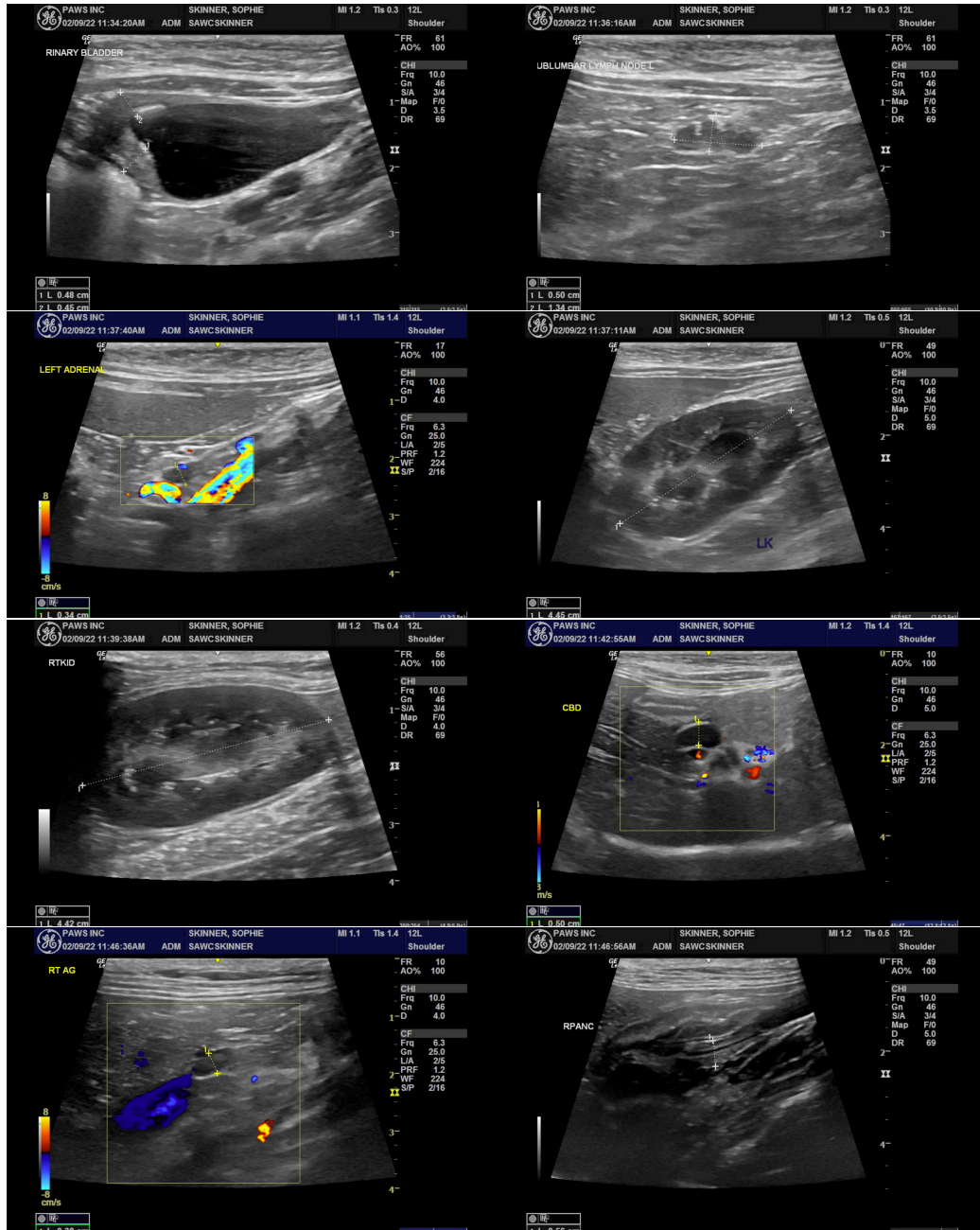
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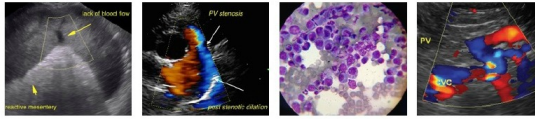
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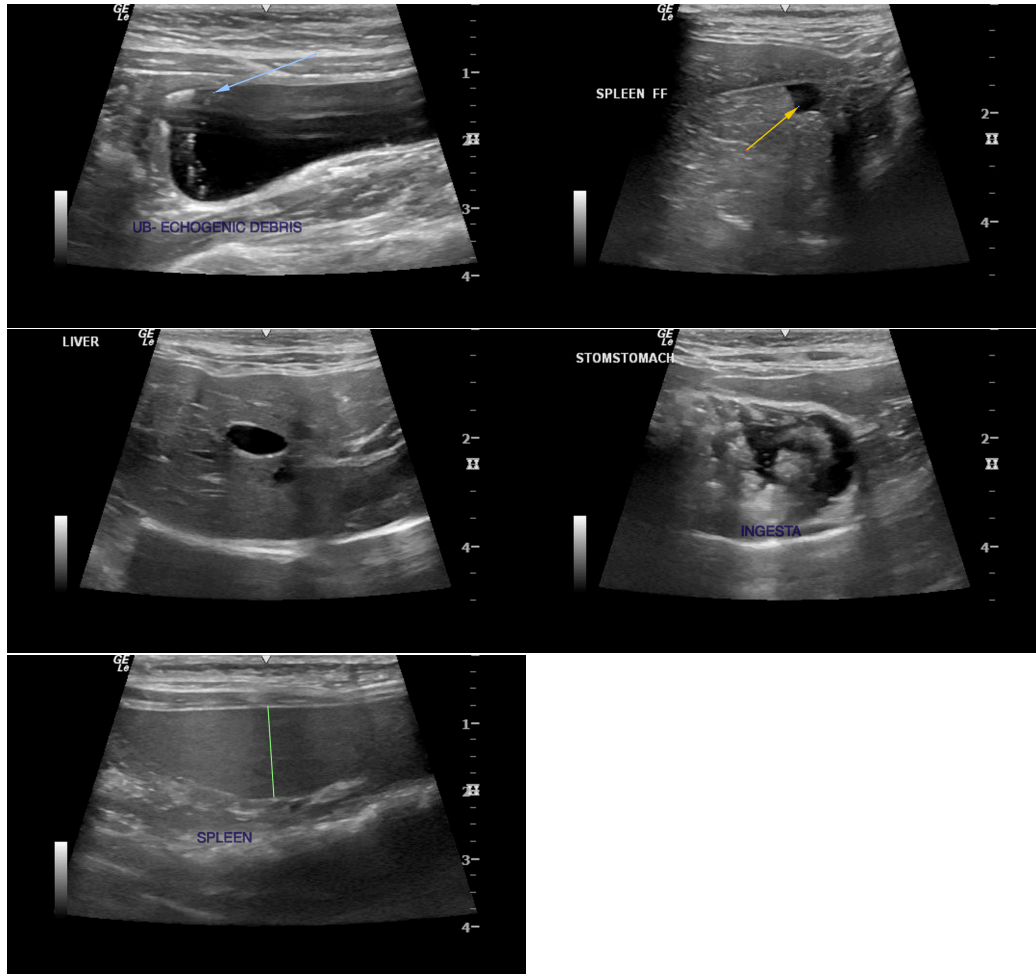
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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