


**PATIENT PRESENTING CLINICAL SIGNS**

**Maisie Roy** History: Maisie, a 5-year old MN DLH, presented on emergency for evaluation of a 3-4 day history of anorexia, preceded by several days of vomiting (first food, then bile, has not vomited since anorexia began). Maisie is an indoor only cat in a single cat household. Maisie has a history of FIV+. Maisie is up to date on vaccinations and not currently taking any medications.

**SPECIES**

Feline

**BREED**

No history of GI sensitivity

DLH

**SEX**

Abnormal PE/Chem/CBC/UA Results: PE abnormalities: mild elev Temp 103.1; BCS 7/9, mild dehyd, icteric

Neutered Male

-CBC: mildly regenerative anemia (HCT: 27.8%, retic: 67.9k)

-PCV/TP: 28%/10.2

**AGE**

-negative slide agglutination

5 years

-Chem17, lytes: hyperproteinemia (10.9), hyperglobulinemia (7.9), hepatopathy (ALT: 1522, GGT: 12, ALP: WNL @ 98), hyperbilirubinemia (25.6), hypochloremia (110)

**WEIGHT**

-UA: bilirubinuria, proteinuria, crystalluria, 1.032

7.7 kg

Treated overnight with IVF with B-vits, Cerenia and Unasyn; today's recheck showed a normal HCT 34%, TP 7.2, t.Bili 20, ALT 1444

**INTERPRETED BY**

 Andrea Nicastro, DVM,  
 Diplomate ACVIM (*Small  
 Animal Internal Medicine*)

**IMAGING PERFORMED BY**

 Dr. Callihan  
 Animal Emerg Care

**HOSPITAL NAME**

Animal Emerg Care

**REFERRING VET**

 Dr. Drummond  
 Animal Emerg Care

**INVOICE**

13977

**DATE**

8.7.23

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

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A large amount of suspended echogenic debris and some gravity-dependent mineralized sand are observed within the lumen. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is prominent in size (5.13 cm in length) with smooth peripheral contours. The cortex is hyperechoic relative to the spleen and appears slightly thickened. There is mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal in size (5.30 cm in length) with smooth peripheral contours. The cortex is hyperechoic relative to the spleen and appears slightly thickened. There is mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**Adrenal Glands**

The left adrenal gland is normal in size (0.38 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is normal in size (0.43 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature appear normal.

**Spleen**

The spleen is normal in size (1.00 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature appears normal.

**Liver**



**PATIENT** The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and appears homogenous. Intrahepatic biliary ducts appear mildly dilated.

Maisie Roy

The gall bladder is moderately distended. The wall is normal in thickness. A small amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are severely and diffusely dilated (up to 0.91 cm). There is a questionable 0.32 cm choledocolith in the distal common bile duct, although this is difficult to definitively discern. The duodenal papilla is mildly thickened (up to 0.50 cm).

**SPECIES**

Feline

**BREED** *Gastrointestinal*

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

DLH

**SEX**

Neutered Male

**AGE**

5 years

*Pancreas*

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

**WEIGHT**

7.7 kg

*Free Abdomen*

There is no obvious evidence of free fluid. A few prominent mesenteric lymph nodes are visualized (the largest measuring 2.13 x 0.33 cm). The nodes are normal in shape and echogenicity.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Questionable choledocolith in the distal common bile duct
- Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. The mildly dilated intrahepatic biliary ducts are consistent with cholangitis.

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**Secondary Findings**

- The urinary bladder debris could be consistent with cells, crystals, exfoliated material, mucous, and/or lipid droplets.
- The bilateral renal changes are suggestive of chronic interstitial nephrosis/nephritis with trace left pyelectasia.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Given the degree of hyperbilirubinemia and the severity of the bile duct dilation, an abdominal exploratory with assessment of bile duct patency is recommended. Liver biopsies should be performed along with obtaining aerobic and anaerobic bile cultures at the time of surgery. Clotting times and thoracic radiographs are recommended prior to surgery. If surgery is not pursued at this time, empirical treatment for cholangiohepatitis/cholangitis is recommended (i.e., broad-spectrum antibiotics, hepatic antioxidants, fluid therapy, etc.) with close monitoring of the patient's



**PATIENT**

serum bilirubin and common bile duct dimensions. If worsening occurs, surgery should be reconsidered.

Maisie Roy

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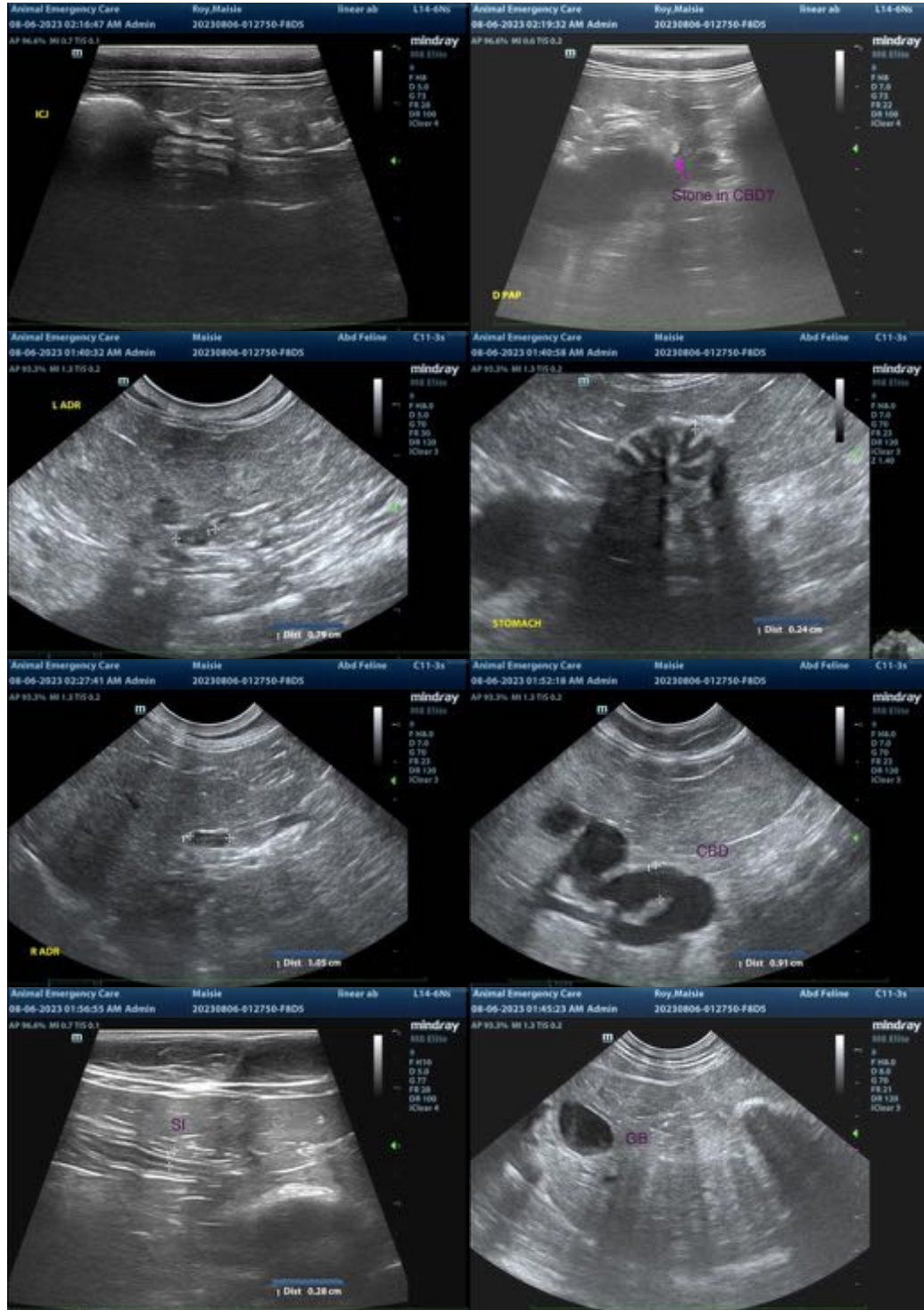
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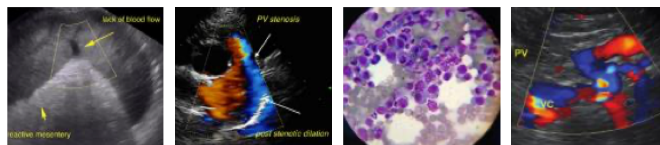
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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