



PATIENT	PRESENTING CLINICAL SIGNS
Alana George	History: inappropriate urination Abnormal PE/Chem/CBC/UA Results: WBC 31,000
SPECIES	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Feline	Urinary System
BREED	Urinary bladder is adequately distended with anechoic contents and echogenic debris. At the apex of the UB wall, there is a suspected rent in the wall. The remainder of the UB, trigone and visible pelvic urethra wall are normal in thickness with a smooth mucosal surface.
Domestic Shorthair	
SEX	Left kidney is normal is size (3.36 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.
Spayed female	
AGE	Right kidney is normal is size (3.22 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.
12 years	
WEIGHT	Adrenal Glands
7 lbs	Left adrenal gland is normal in size (0.28 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.
INTERPRETED BY	Right adrenal gland is normal in size (0.29 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.
Beth Johnson, DVM DACVIM	
IMAGING PERFORMED BY	Spleen
Chelsea Pastor	Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.
HOSPITAL NAME	Liver
Fredon AH AH	Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Several, small, less than 1.0 cm in diameter discrete hyperechoic nodules were noted throughout the parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.
REFERRING VET	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.
Dr. Grau	
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DATE	
7/7/22	



PATIENT

Gastrointestinal

Alana George

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.

SPECIES

Feline

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

BREED

Domestic Shorthair

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

SEX

Spayed female

Pancreas

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

AGE

12 years

Free Abdomen

A large amount of echogenic appearing free fluid is present throughout the abdomen. The mesentery/fat is diffusely hyperechoic and clumped with nodular appearance in the mid to caudal abdomen.

WEIGHT

7 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM

ULTRASONOGRAPHIC FINDINGS

Primary Findings

Suspected urinary bladder wall rent or tear – see below recommendations for confirmation recommendations

IMAGING PERFORMED BY

Chelsea Pastor

Large amount of echogenic free fluid and enhanced nodular mesentery can be seen with diffuse abdominal involvement of an infiltrative disease as can be seen with neoplastic effusion caused by carcinomatosis. However, given the concern for a possible urinary bladder wall rent, the findings could be secondary to a uroabdomen. Other differentials still include benign inflammatory fluid secondary to pancreatitis, hemoabdomen, etc. Transudate is considered less likely given the echogenic appearance; however, it too remains a differential.

HOSPITAL NAME

Fredon AH AH

Heterogenous liver. Differentials include both benign and chronic inflammatory disease as well as infiltrative neoplasia such as round cell neoplasia or less likely metastatic neoplasia. Differentials for the hyperechoic nodules include fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or infiltrative neoplasia/metastatic disease.

REFERRING VET

Dr. Grau

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.

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Acute pancreatitis is suspected, but these changes could be secondary to the above discussed differentials.

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PATIENT

Alana George

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed female

AGE

12 years

WEIGHT

7 lbs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. 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.
2. Fluid analysis for cytology as well as culture is recommended if not already evaluated.
3. A urinary tract contrast study to definitively assess the integrity of the urinary bladder wall could be considered or alternatively, saline can be administered through a urinary catheter and agitated using ultrasound to "follow the bubbles" through the possible rent.
4. Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.
5. If a diagnosis is not obtained from fluid cytology then a FNA of the liver +/- the clumped mesentery could be considered if the patient's coagulation status is appropriate.
6. In the meantime, supportive symptomatic care in addition to broad spectrum antibiotics as well as hydration and nutritional support as needed is recommended.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Chelsea Pastor

HOSPITAL NAME

Fredon AH AH

REFERRING VET

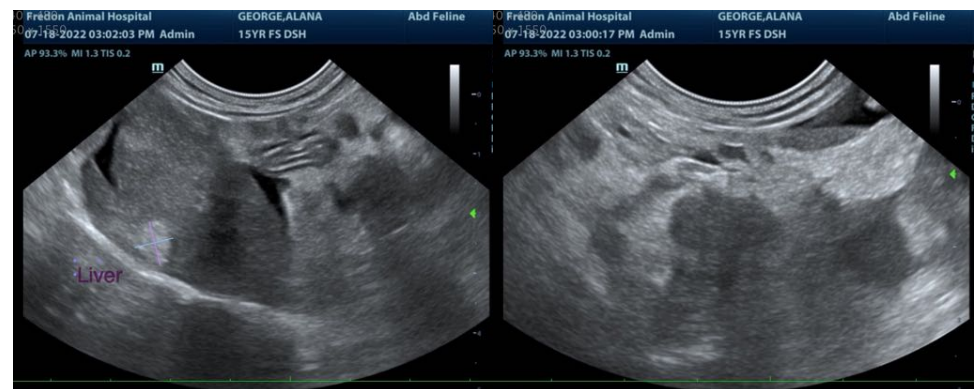
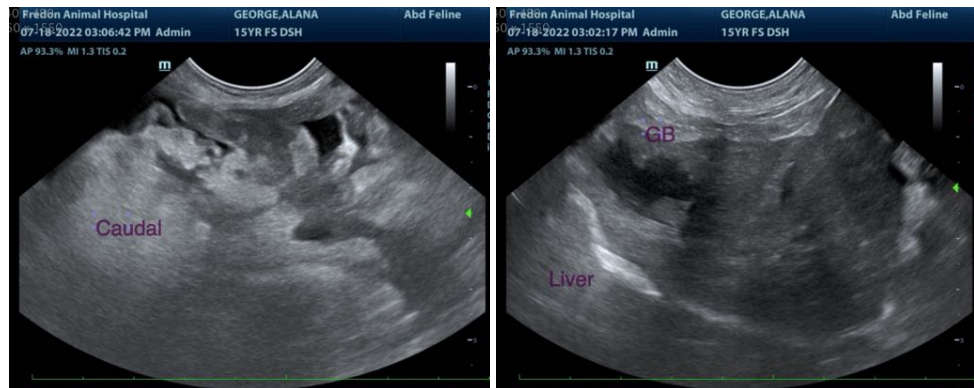
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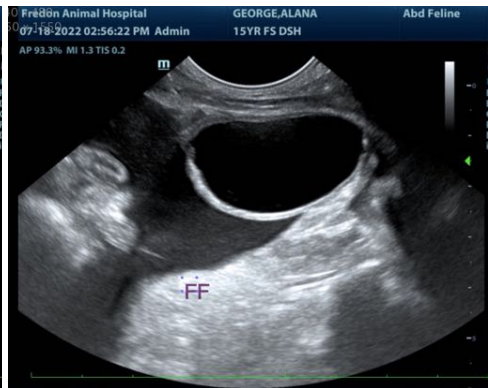
Dr. Grau

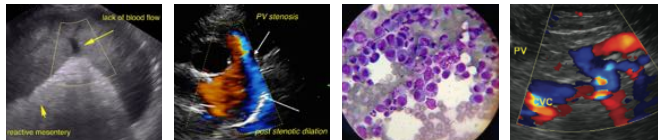
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PATIENT

Alana George

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.

SPECIES

Feline

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.

Beth Johnson, DVM DACVIM

BREED

Domestic Shorthair

Beth.Johnson@SonoPath.com

SEX

Spayed female

AGE

12 years

WEIGHT

7 lbs

INTERPRETED BY

Beth Johnson, DVM
DACVIM

**IMAGING
PERFORMED BY**

Chelsea Pastor

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