



**PATIENT**

Fiona Misko

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Spayed female

**AGE**

11.5 years

**WEIGHT**

12.6 lbs

**INTERPRETED BY**

Dr Brittany Sinclair,  
BVSc(hons), DACVECC

**IMAGING PERFORMED BY**

Dr. Arms

**HOSPITAL NAME**

Gilbertsville VH

**REFERRING VET**

Dr. Arms

**INVOICE**

43274

**DATE**

3/6/23

**PRESENTING CLINICAL SIGNS**

History: Very mild chronic GI hx. Also intermit URI history. Acute onset anorexia x 2-3 days, vomit one time. mild response to cerenia and buprinorphine with eating treats and more interactive. Abnormal PE/Chem/CBC/UA Results: mild neutrophilia - rest normal Rads - right pleural effusion, mass effect between liver and stomach with decreased peritoneal detail.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and visible pelvic urethra were of normal thickness. The ureters were not visible which is normal. There was normal wall layering with no masses, uroliths or abnormal thickening visualized. Mobile and gravity dependent debris is present in the urinary bladder. No evidence of inflammatory or neoplastic changes was noted.

The kidneys were both normal size and structure, with smooth capsule and normal corticomedullary definition and ratio (cortex 1/3 of medulla). Medullary structure differed distinctly from that of the cortex. No evidence of pelvic dilation was present. The right kidney measured 3.66 cm. The left kidney measured 3.54 cm.

**Adrenal Glands**

Both adrenal glands were not visualized.

**Spleen**

The spleen was normal with a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma and smooth capsule, with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. Gallbladder is moderately distended with normal wall thickness and anechoic contents. Common bile duct is non-distended and tapers normally

**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed. 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. Visualized peristalsis appears appropriate.



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There were no focal lesions consistent with obstruction or a mass effect observed. 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.

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***Pancreas***

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Pancreas is severely enlarged and hypoechoic with surrounding hyperechoic edematous mesentery and focal area spherical hypoechoic structure in left limb of pancreas consistent with pancreatic cyst/abscess or may represent peripancreatic lymphadenopathy. Scant surrounding free fluid.

Lymph nodes – AT

**SEX**

Spayed female

Free abdomen – scant free fluid near pancreas

**AGE**

11.5 years

***Lymph Nodes***

No clinically significant lymphadenopathy or abnormalities noted.

**WEIGHT**

12.6 lbs

***Free Abdomen***

A scant amount of free fluid was noted near the pancreas.

**INTERPRETED BY**

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BVSc(hons), DACVECC

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

1. Severe pancreatitis
2. Pleural effusion
3. Urinary bladder debris

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Pancreatic changes are severe, and I am concerned for pancreatic neoplasia given the severity of enlargement and marked surrounding peritonitis. No specific solid mass was visualized and severe necrotizing pancreatitis, possibly with pancreatic abscessation is also very possible. Spherical structure in the area of the pancreas may represent a pancreatic fluid accumulation (abscess, cyst) or an enlarged peripancreatic lymph node. Pancreatic aspirate is recommended to further define ultrasonographic changes, but percutaneous sampling can be difficult due to surrounding organs and location. FNA may be non-diagnostic, revealing only inflammation despite neoplastic disease being present.

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The prognosis of acute pancreatitis is largely dependent on the severity of clinical signs and response to treatment. Mortality is reported as high as 25% and secondary organ dysfunction and systemic inflammatory response syndrome can occur as inflammation progresses. Ultrasonographically, pancreatic inflammation is severe in this patient. Ultimately the need for hospitalization for treatment is based on patients' cardiovascular stability, ability to control pain and appetite. Hydration and enteral nutrition are key factors in positive outcomes and if these cannot be achieved on an outpatient basis, hospitalization for 24 hour care is strongly recommended.

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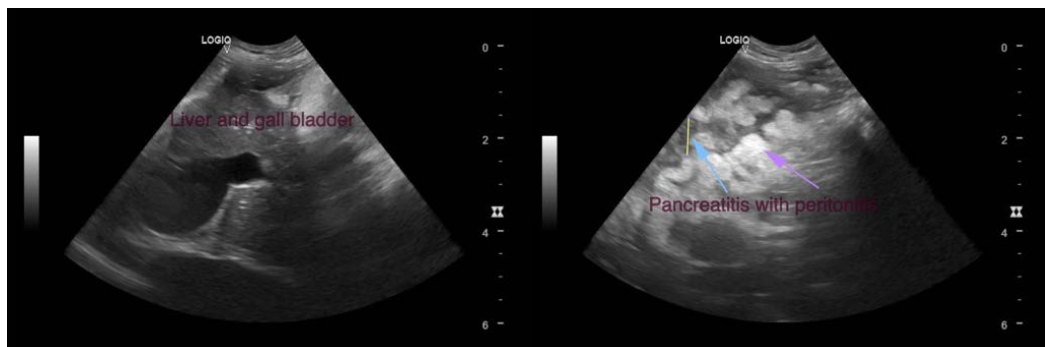
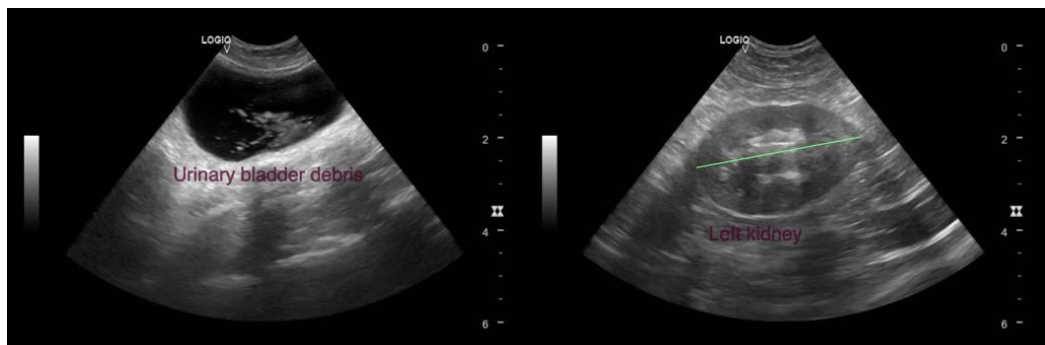
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Treatment for pancreatitis is entirely supportive and involves fluid support, GI support - anti-nausea (ondansetron, cerenia 2mg/kg PO SID), appetite stimulation (mirtazapine, elura), analgesia (buprenorphin, gabapentin) and enteral nutrition as needed (syringe feeding, NG tube placement, etc). Antibiotics are generally not warranted for acute pancreatitis as it is usually sterile, however given the severity of inflammation and presence of possible fluid accumulation, I would use antibiotics (ex unasyn +/- fluoroquinolone) in this case. Intravenous antibiotics are preferred to ensure absorption and decrease GI side effects of oral antibiotics which can lower appetite compromising treatment and recovery. Anti-inflammatory steroids may be tried in an attempt to reduce inflammation if traditional supportive care is inadequate. Serial imaging is indicated to monitor response to treatment.

Pleural effusion is not a common finding in pancreatitis, and I am concerned this is representative of intra-thoracic disease – pleural space disease, pulmonary disease, cardiac disease. Extension of inflammation into the pleural space and subsequent effusion is possible, but other causes of pleural effusion should be investigated. Thoracocentesis with evaluation of fluid is recommended, post thoracocentesis radiographs to assess for pulmonary disease which may be masked by the presence of fluid and cardiac evaluation should be considered.

Correlate clinical significance of urinary bladder debris with bloodwork/urinalysis findings and clinical signs.





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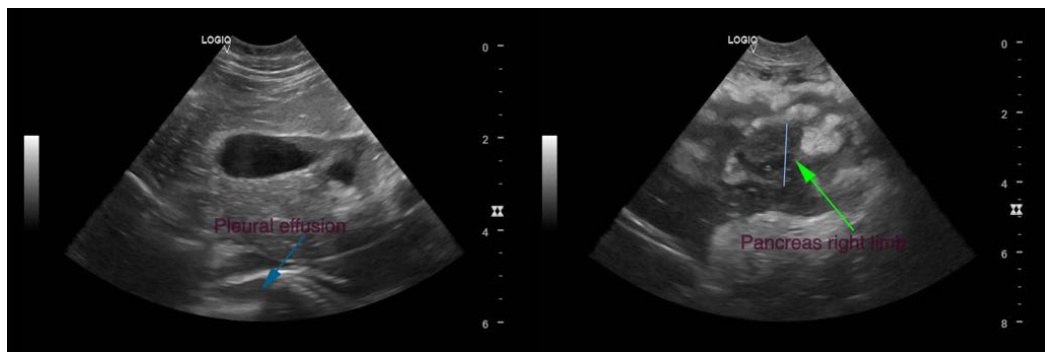
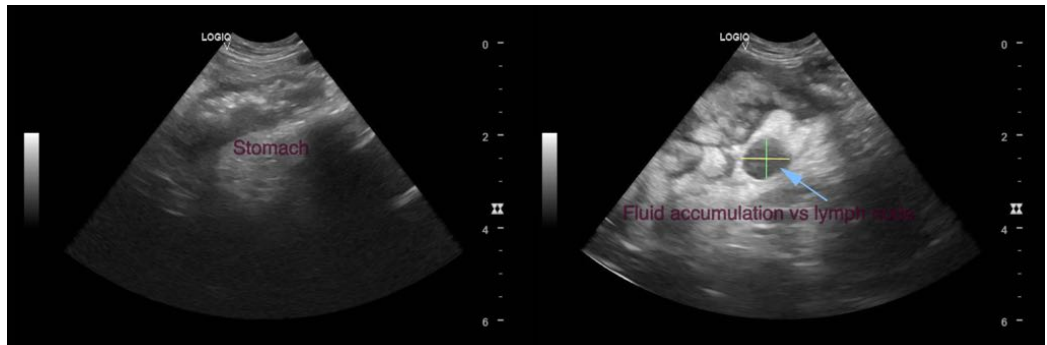
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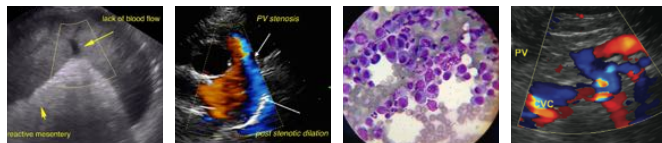
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@SonoPath.com

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