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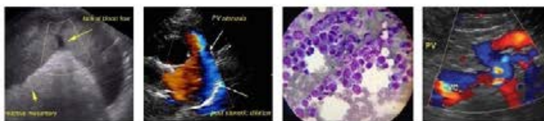


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT
Josie Struthers

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
14 Years

WEIGHT
7.15 kg

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
Kelly Reschny

HOSPITAL NAME
Hamilton Region VC

REFERRING VET
Dr. Bourque

INVOICE
44832

DATE
2/8/23

PRESENTING CLINICAL SIGNS

Initially at different emerg clinic Feb 4th re: vomiting. Thu - Sat 3-4x daily, on Sat immediately post prandial - no BM since BW and Rads @ that clinic. Owner was told rads were normal - on my review of rads I was concerned with abN in retroperitoneal space. Was Tx on Sat with injectable cerenia injection and cerenia PO to go home This resolved vomiting. Pet ate Sun, on Mon not eating again. Tues ate small amt. Straining in litter box today, possible hematuria. Decrease in frequency of urination, usually urinates 5 large times/day but now 2-3 smaller urinations/day since visit to the other emerg Normal examination (other than is obese and has dental tartar) - cat is anxious so fear may mask signs of pain Current Medications Cerenia, gabapentin, amoxicillin, mirtazapine

Abnormal PE/Chem/CBC/UA Results: Feb 7 iStat Chem 8: marginal increase in iCa 1.39 (1.2-1.32), high end Na 155, high end K 4.5, marginal increase in Cl (126) Feb 4 Normal WBC with monocytosis 0.76 (0.05 - 0.67), Ca 2.84 (1.95 - 2.83), Chol 6.11 (1.68 - 5.81)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, 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 (3.96 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.18 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.58 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.

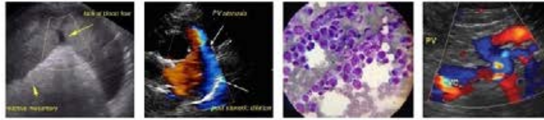
The right adrenal gland is normal in size measuring 0.28 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is borderline large, mildly mottled, and irregular in shape, measuring 1.09 cm. The blood flow through the hilus and splenic parenchyma appears normal. The tail of the spleen has an irregular, "club-like" appearance with a widening as it becomes more distal, creating somewhat of a mass effect. This could be consistent with folding of the spleen or an isoechoic mass effect. Additionally, there is some surrounding inflammation in the region.

Liver

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



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The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains mild to moderate fluid. 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 layers is adequate and there is no impression of reduced peristaltic activity. While no focal lesions are visualized, the pylorus appears somewhat fluid dilated with lack of progressive motility of fluid contents.

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. Jejunum wall measures 0.22 cm. Visualized peristalsis appears appropriate. There are occasional loops of bowel in the cranial abdomen with mild fluid dilation and gas. No focal obstruction is visualized, but there is occasionally some intraluminal shadowing material, so a partial obstruction cannot be definitively ruled out.

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.

Pancreas

The pancreas is large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild pancreatitis.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The omentum appears somewhat hyperechoic in the cranial abdomen in the region around the spleen.

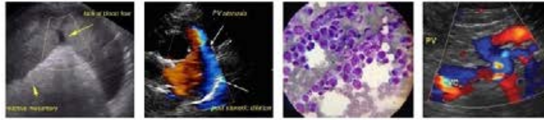
ULTRASONOGRAPHIC FINDINGS

- Irregular, mildly mottled spleen with a thickened tail region – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. The irregular shaped tail could represent folding of the spleen back upon itself or even an isoechoic mass effect. Consider a fine needle aspirate of this region.

- Mildly hypoechoic pancreas with surrounding hyperechoic mesentery – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. The appearance of the liver could represent fat deposition in an obese cat.

- Moderate gastric and pyloric fluid dilation – While a focus of obstruction is not clearly visualized, this cannot be definitively ruled out. Consider the possibility of a partial obstruction or gastric ileus.



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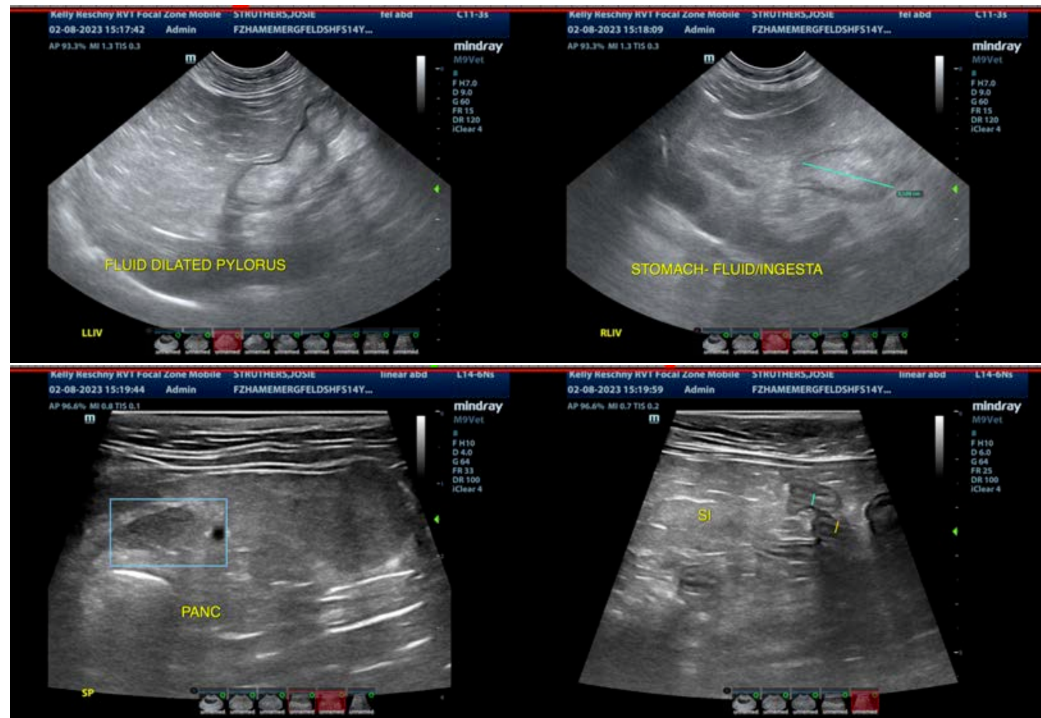
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

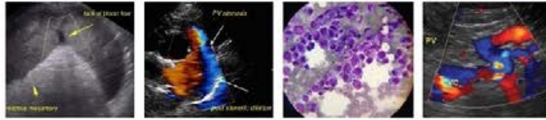
There is the general impression of inflammation in the left cranial abdomen. This could be associated with the pancreas as well as the spleen, as the caudal portion of the spleen appears somewhat irregular with a “club-like” appearance. This could represent folding and irritation of the spleen, or even an isoechoic mass effect.

Additionally, the pancreas appears hypoechoic in this region with surrounding inflammation, so focal pancreatitis could be a factor. Additionally, there is some fluid dilation of the stomach and pylorus. While I cannot find a focal obstructive point, the appearance and the non-progressive motility of the fluid in this region is concerning for possible partial obstruction, although associated gastric and small intestinal ileus could also be at play.

Recommend in-hospital treatment for gastroenteritis/pancreatitis with serial radiographs. If the patient is not improving, or an obstructive pattern develops, then there could be the possibility of an explore to further evaluate. Additionally, a recheck ultrasound could be considered, particularly if gastric distention persists despite fasting.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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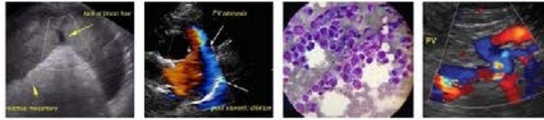

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

kathleen.sennello@sonopath.com