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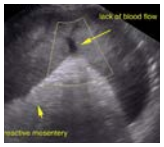
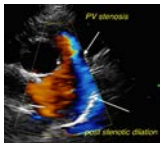
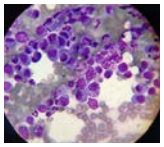
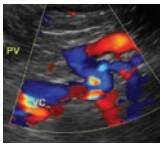

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1-800-838-4268 info@sonopath.com

PATIENT
Maxie Asch

SPECIES
Canine

BREED
Hound X

SEX
Spayed Female

AGE
12 Years 11 Months

WEIGHT
58.4 Pounds

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

IMAGING PERFORMED BY
Jessica Miller

HOSPITAL NAME
Raritan Valley VH

REFERRING VET
Dr. Toshniwal

INVOICE
39066

DATE
6/28/22

PRESENTING CLINICAL SIGNS

Severely elevated ALKP, distended abdomen, elevated BUN, creatinine, SDMA, GGT. Current meds: Clindamycin, gabapentin, denamarin
Abnormal PE/Chem/CBC/UA Results: ALKP 843, Crea 2.6, BUN 51, SDMA 46 UA: UPC 3.0, protein +2 SG: 1.011

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (6.22 cm) with moderate pyelectasia at 0.46 cm and non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.86 cm) with moderate pyelectasia at 0.55 cm, a 0.62 cm cyst, and non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large in size measuring 1.03 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 large in size measuring 1.02 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 pancreas is prominent , hypoechoic and mottled. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are occasional small cystic lesions visualized within the parenchyma. Additionally, there is a larger cystic mixed echogenic, somewhat complex lesion measuring 5.64 cm.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris and some polyps. There is no evidence of bile duct dilation. These changes can be consistent with an early gall bladder mucocele.

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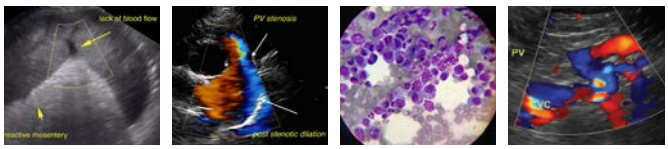

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Gastrointestinal

The stomach contains a moderate to large amount of shadowing debris. It measures at a normal thickness of <0.7cm 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. There is fluid and ingesta visualized within the gastric lumen, as well there are some focal large, hypoechoic structure that could be consistent with large chunks of food, ingested foreign material, etc. The largest structure measures 4.5 X 1.35cm.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measured 0.51 cm. Jejunum wall measured 0.27 cm. Some mucosal speckling is present in the duodenum. Visualized peristalsis appears appropriate.

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

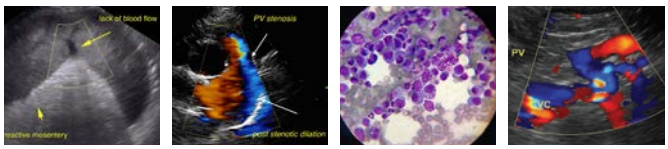
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is no evidence of a significant lymphadenopathy. There is a focal area of hyperechoic tissue medial to the spleen. I suspect this could be associated with inflammation of the left limb of the pancreas, but continued monitoring of this region is warranted.

ULTRASONOGRAPHIC FINDINGS

- Echogenic debris visualized within the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Decreased corticomedullary distinction in both kidneys with pyelectasia and non-obstructive nephroliths – Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Prominent, hypoechoic and mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Heterogeneous liver with complex mixed echogenic cystic mass lesion – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The significance of the mass lesion is unclear. Sampling would be difficult due to its cystic nature. Recommend continued monitoring with ultrasound or advanced imaging.



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- Large gallbladder debris with early polyp formation – There is a large amount of adhered gallbladder debris and early polyp formation. This is consistent with early gallbladder disease. Recommend medical therapy and continued monitoring with ultrasound.
- Large shadowing debris within the gastric lumen/gastric foreign material– Correlate with feeding history and abdominal radiographs. Recommend serial imaging to make sure foreign material is not a a true foreign body.
- Diffuse small intestinal thickening with mucosal speckling- Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient has many ultrasonographic lesions. Based on the history, no GI signs are mentioned, but there does appear to be some abnormalities associated with the pancreas and gastrointestinal tract.

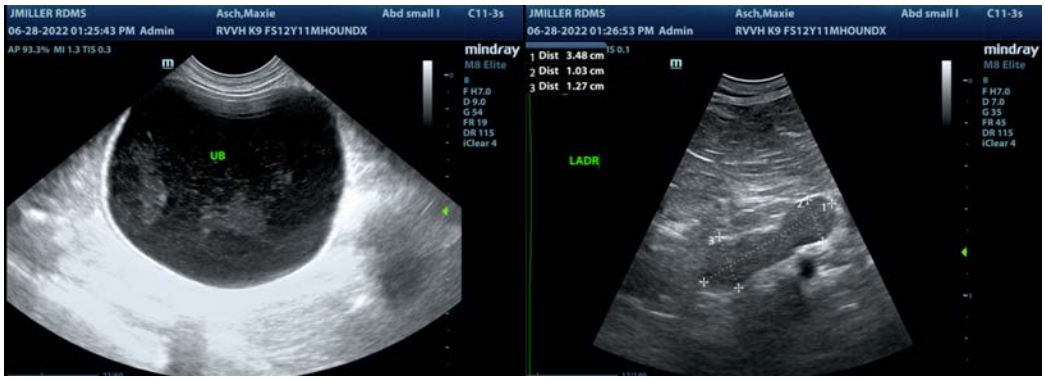
There is shadowing material and a possible foreign body within the gastric lumen. Correlate with abdominal radiographs and feeding history. Recommend serial imaging to see if this material has passed.

Additionally, there is diffuse thickening of the small intestine and some mucosal specking. If signs of intestinal disease are present, GI biopsies could be considered.

The ALP is elevated. This could be secondary to bilateral adrenomegaly and early Cushing's disease, and also could be associated with the cystic mass lesion observed. This lesion would be challenging to sample. Options include continued monitoring with ultrasound our advanced imaging (contrast CT scan) to evaluate for possible surgical evaluation. There is a large amount of material in the gall bladder with some polyps and possibly early mucocele formation. Recommend starting ursodiol and continued monitoring for possible progression into a surgical lesion.

Both kidneys have reduced corticomedullary distinction and pyelectasia. This in combination with echogenic debris in the urinary bladder increases concern for possible pyelonephritis. Recommend blood pressure evaluation, urine culture and urinalysis, Consider fluid therapy with broad-spectrum antibiotics while awaiting culture results.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.



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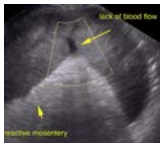
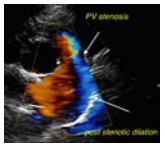
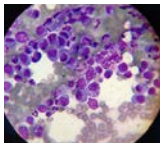
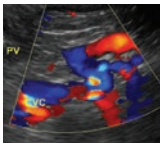

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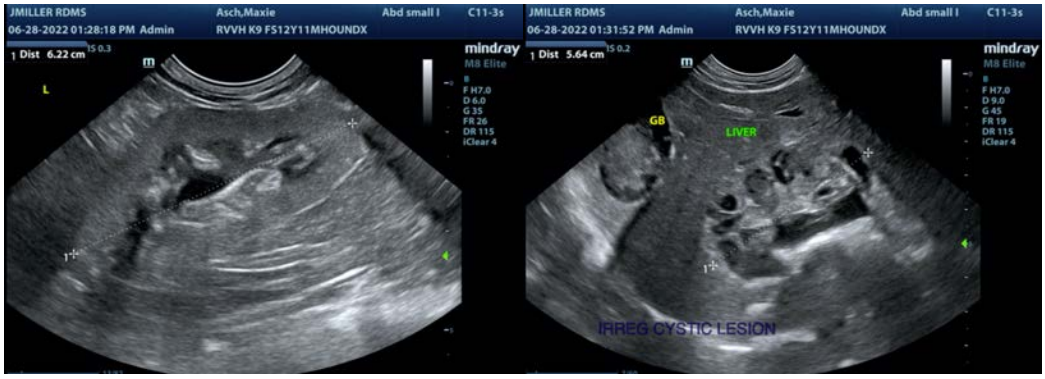

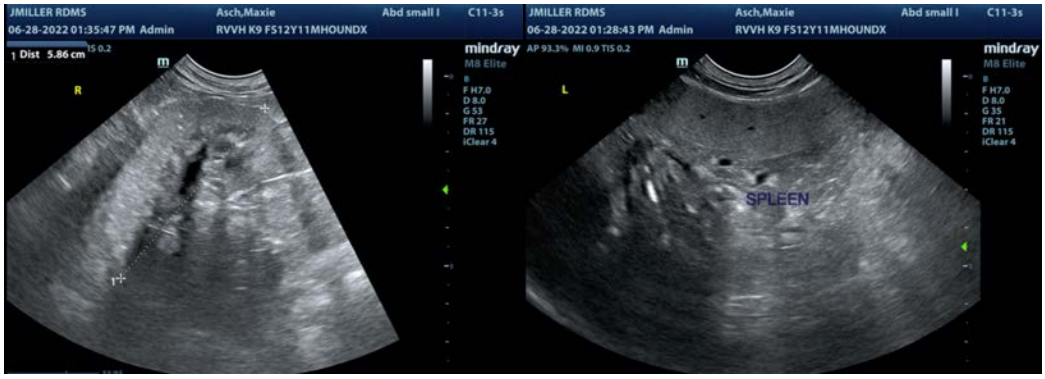

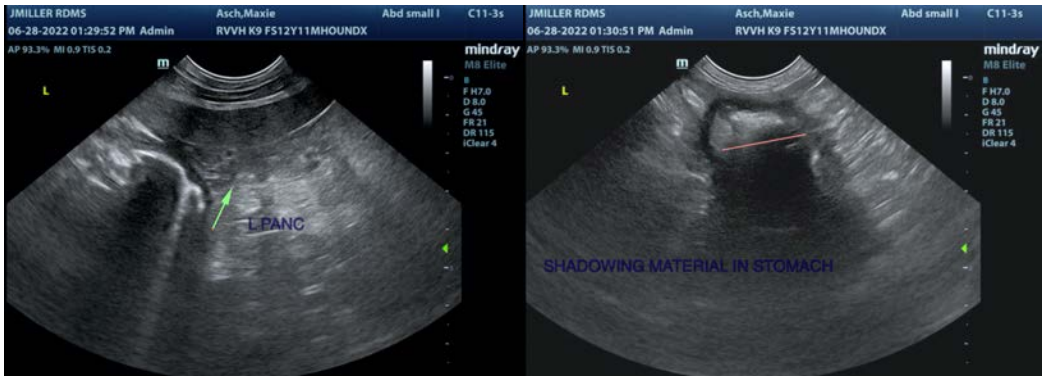

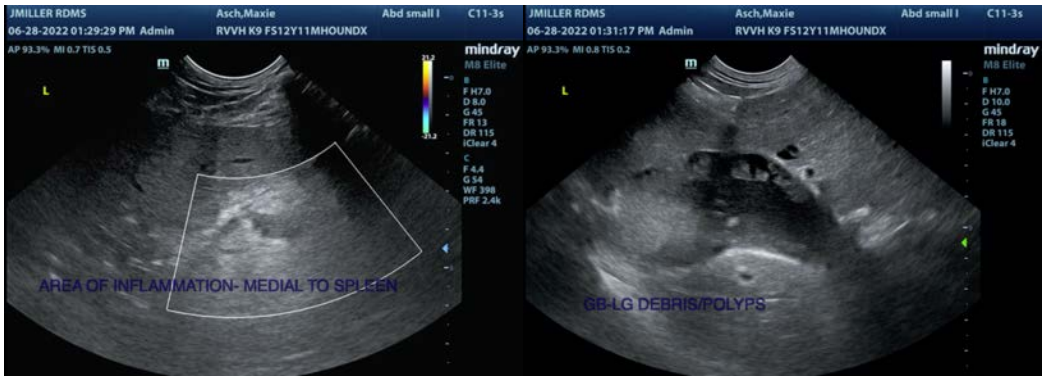

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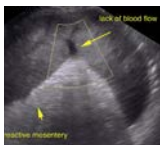
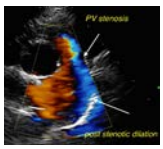
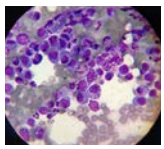
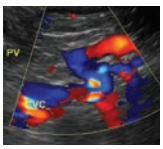

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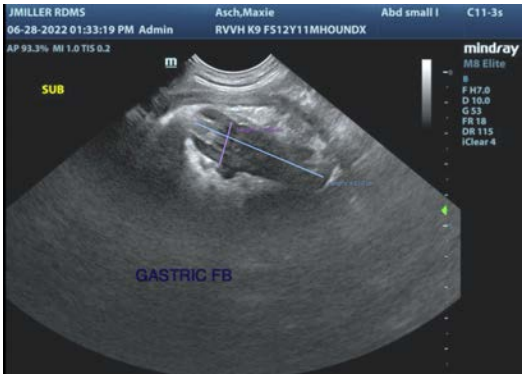

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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