



PATIENT PRESENTING CLINICAL SIGNS

Cocoa McGill

History: Vomiting, not eating, lethargic and dehydrated. Admit on IVF. Has fever. Painful abdomen. Given some Torbugesic for scan due to discomfort. Gabapentin, Cerenia, Sucralfate and Baytril
Abnormal PE/Chem/CBC/UA Results: Rads suggestive of Peritonitis and US was recommended. Marked elevation of ALP, ALT and T Bili.

SPECIES

Canine

BREED

Sheltie

SEX

Spayed Female

AGE

10 years

WEIGHT

21.4 lbs

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A scant amount of echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal in size (4.76 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (5.25 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is mildly enlarged (0.61 cm at cranial pole) (0.73 cm at caudal pole) (2.07 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

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Crystal Hill

The right adrenal gland is borderline enlarged (1.54 cm at cranial pole) (0.65 cm at caudal pole) (1.92 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

HOSPITAL NAME

Lakeshore Woods AH

Spleen

The spleen is subjectively normal in size (1.22 cm in width at the level of the hilus) with irregular, undulating, peripheral contours, particularly at the cranial pole. The parenchyma is subtly mottled in appearance. At the cranial aspect, a 1.68 cm ill-defined, heterogenous area/swelling is visualized. In addition, a 0.85 cm hypoechoic nodule is observed at the medial aspect, approximately mid-spleen. Splenic vasculature is normal with no evidence of thrombosis.

REFERRING VET

Dr. Masaud

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder distended. The wall is mildly thickened (up to 0.18 cm). There is questionable loss of wall integrity. A large amount of aggregated, echogenic, congealed sludge is suspended within the

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lumen. The mesentery effacing the serosal surface is hyperechoic. The cystic and common bile ducts are normal/not seen.

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Gastrointestinal

The gastric wall is borderline thickened (up to 0.51 cm) with retention of the normal layering pattern. The gastric lumen contains a small amount of fluid. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

BREED

Sheltie

Pancreas

SEX

Spayed Female

The base and limbs of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

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Free Abdomen

The mesentery in the cranial abdomen is hyperechoic. There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

WEIGHT

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ULTRASONOGRAPHIC FINDINGS

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Primary Findings

- The gall bladder changes are consistent with cholecystitis with a suspected mucocele +/- rupture or impending rupture. Adjacent peritonitis is present.
- Although the hepatic parenchyma appears normal, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis) should be considered, particularly in light of the patient's liver values.
- The splenic lesion/swelling at the cranial aspect could be consistent with a tumor or a benign process (i.e., a focus of lymphoid hyperplasia, extramedullary hematopoiesis, similar). The diffuse splenic parenchymal changes are nonspecific and could be consistent with a benign process or emerging neoplasia.

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Secondary Findings

- Bilateral, chronic, age-related changes
- Mild, bilateral adrenomegaly
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The gastric wall changes are most consistent with inflammation/gastritis, possibly secondary to cranial peritonitis.

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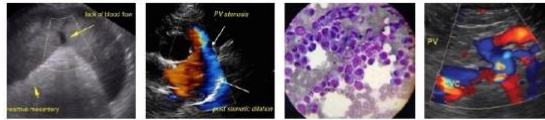
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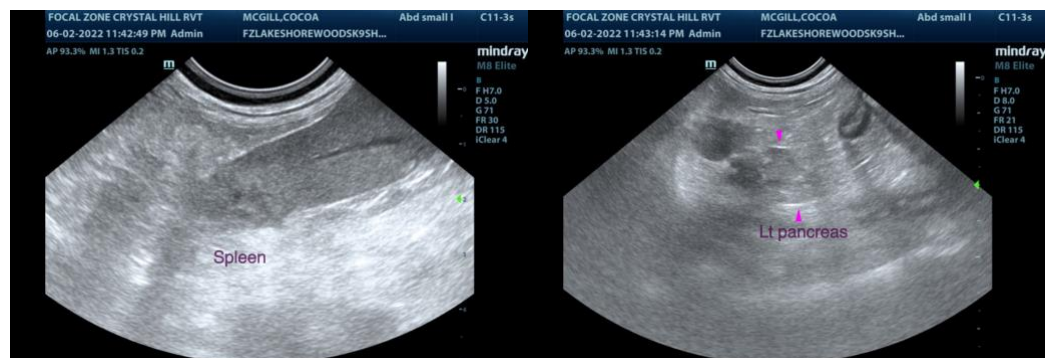
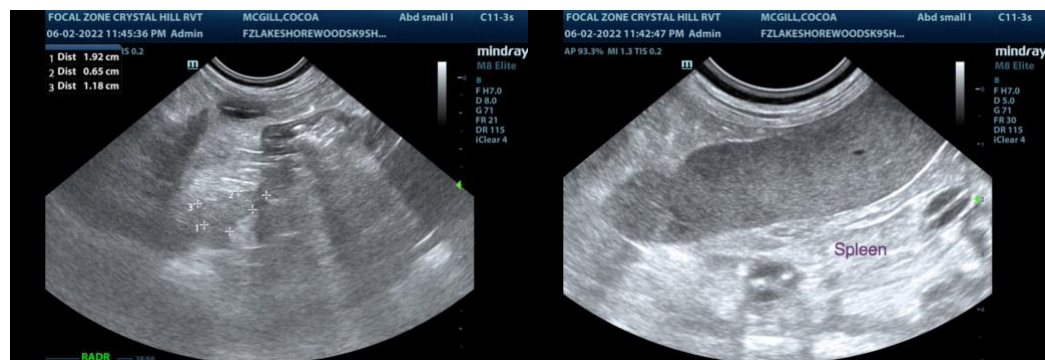
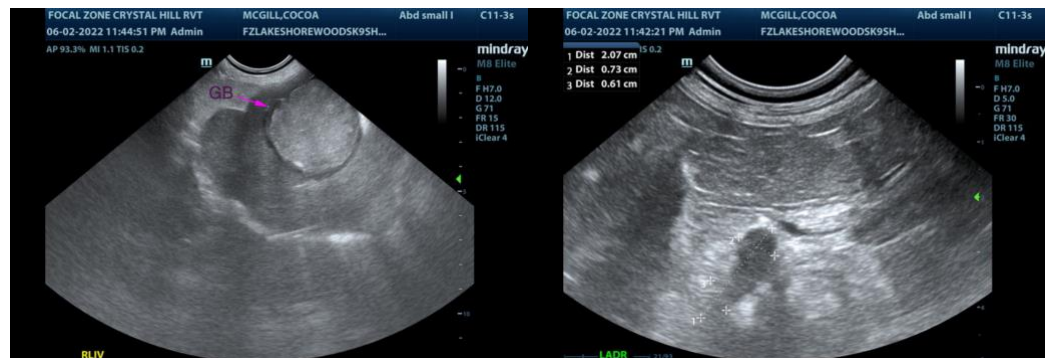
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- An abdominal exploratory with a cholecystectomy, liver biopsy, +/- splenectomy is recommended. If surgery is to be pursued, referral to a board-certified surgeon is recommended due to the potential for perioperative complications.
- If surgery is not pursued at this time, empirical treatment for cholecystitis/cholangiohepatitis (i.e., broad-spectrum antibiotic therapy, IV fluids, symptomatic care) is recommended. If the patient's liver values continue to increase and/or free fluid develops within the abdomen, an exploratory should be reconsidered.
- Thoracic radiographs should be performed prior to any anesthetic event.





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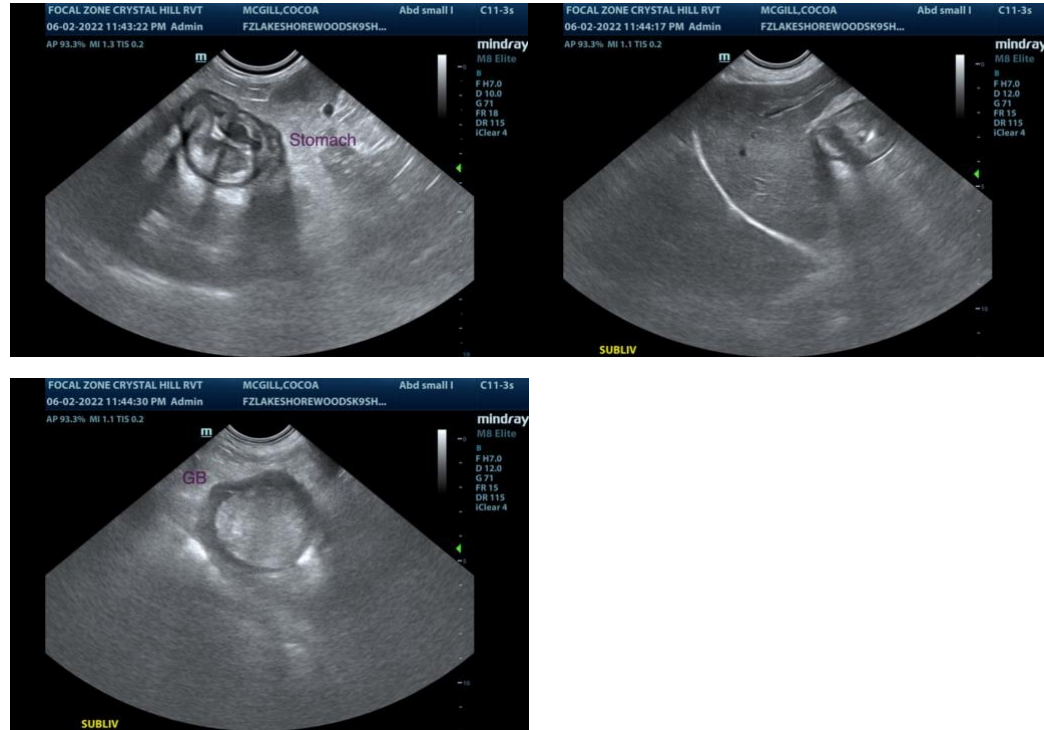
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βThe information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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