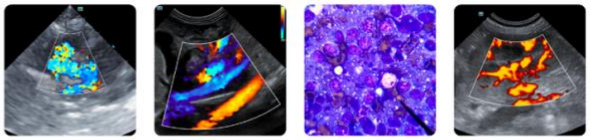


PATIENT

Maggie Cittandino

SPECIES

Canine

BREED

Mini Schnauzer

SEX

Spayed Female

AGE

14 Years

WEIGHT

13 pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Julia Bakker DVM

HOSPITAL NAME

Orange Blossom Veterinary Imaging

REFERRING VET

Dr. Molly Caldwell DVM

INVOICE

13934

DATE

02/23/26

PRESENTING CLINICAL SIGNS

- History of inappropriate urination and poor appetite. Recently treated with diet for cystoliths. Urinary accidents managed with proin.
- Radiographs:
- 1. Small urinary cystic calculi. 2. Bilateral nephrolithiasis. 3. Mild ileus. Enteritis should be considered. Inflammatory bowel disease cannot be ruled out. 4. Radiographically unremarkable thorax. Given the elevated white blood cell count and calcium abdominal ultrasound should be considered for additional evaluation.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots, as well as dependent mineral “sand” (crystals) debris. Both sterile inflammation as well as urinary tract infection can present with echogenic debris. No masses or discrete definitive cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal in size (4.32 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, or infarcts observed.

Right kidney is normal in size (4.8 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, or infarcts observed. Multiple too numerous to count punctate nonobstructive nephroliths were noted bilaterally.

Adrenal Glands

Left adrenal gland is normal in size (0.43 cm at cranial pole and 0.48 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

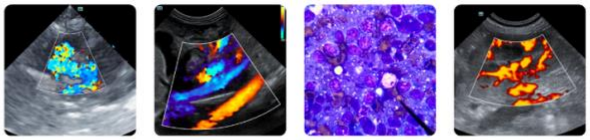
Right adrenal gland is normal in size (0.67 cm at cranial pole and 0.55 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

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 masses are observed. Splenic vasculature appears normal. An approximately 1.2 cm x 0.90 cm mildly heterogenous noncapsule deforming predominantly hypo- to anechoic density near the caudal aspect of the spleen was present as well as a similar appearing 1.2 cm x 1.4 cm density near the cranial aspect of the spleen.

Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. Visible vasculature and biliary tree appear normal without distension or



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congestion. In the mid liver, an approximately 1.9 cm x 2.5 cm in size homogenous hyperechoic nodule is visualized.

Gallbladder is moderately overdistended with organized, aggregated and centralized non-gravity dependent sludge. Striations of sludge separated by anechoic areas are noted extending from the lumen to the luminal wall. The wall is mildly thick, irregular and hyperechoic. There is no evidence of CBD dilation.

Gastrointestinal

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.

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.

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

Pancreas

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- Hypo- to anechoic splenic nodules- could represent a benign lesion such as cysts, hematomas, nodular hyperplasia, extramedullary hematopoiesis, etc., however, infiltrative neoplasia can mimic benign lesions and cannot be ruled out without tissue sampling.
- Liver nodule- Similarly, the liver nodule could represent a benign process such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, myelolipomas, etc., however, while primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out without tissue sampling.
- Gallbladder mucocele.
- Punctate bilateral nonobstructive nephroliths and a moderate amount of echogenic urinary bladder mineral/sand debris within the urinary bladder.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If the patient is hypercalcemic, further recommendations include a malignancy panel (PTH, PTHrP, iCa) to Michigan State College of Veterinary Medicine is recommended for further investigation of the

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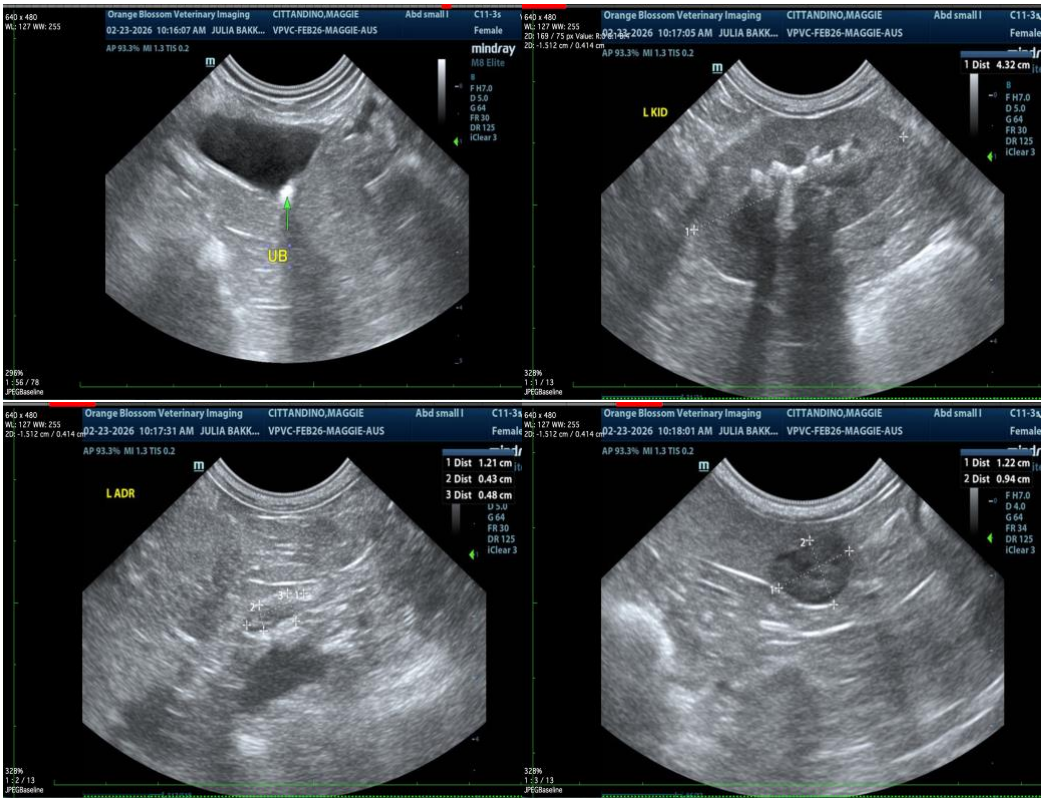
reported hypercalcemia.

Fine needle aspirates of the splenic nodules and liver nodule could be considered if the patient's coagulation status is appropriate.

Pending results of above, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

Additionally, if not recently evaluated, a thorough rectal and perianal exam is recommended.

Having said that, the gallbladder changes described above/mucocele could also be contributing to patient's reported decreased appetite and may warrant further intervention. Beginning potentially with supportive symptomatic medical management of clinical signs and empirical hepatic nutraceutical such as ursodiol or pending patient's full workup, physical exam findings, laboratory changes, etc. could warrant an exploratory laparotomy and even cholecystectomy.



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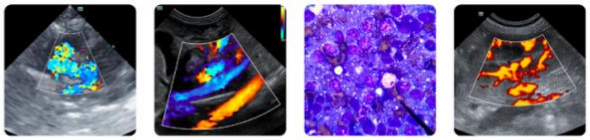

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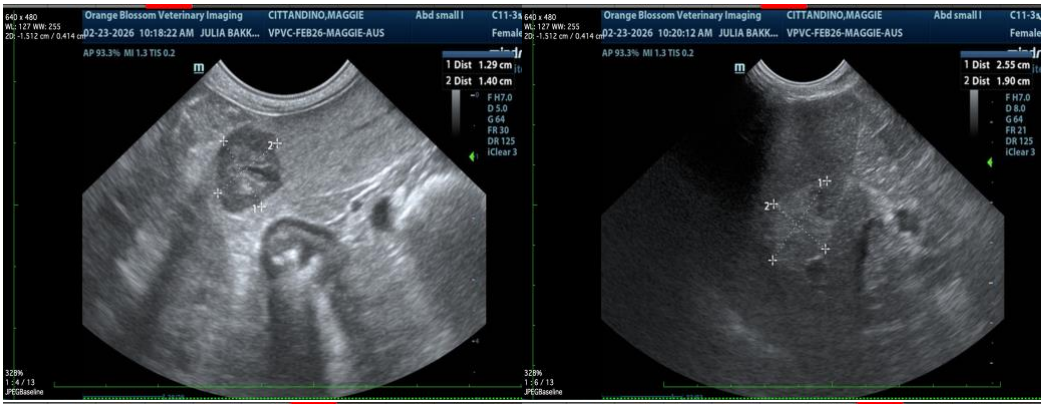

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

info@sonopath.com