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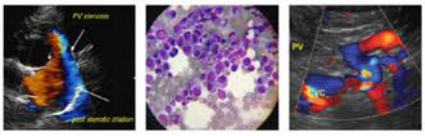

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Loki Garg

SPECIES

Canine

BREED

Husky

SEX

Neutered Male

AGE

13 Years

WEIGHT

61 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Wixom Family Pet Practice

INVOICE

42490

DATE

11/2/22

PRESENTING CLINICAL SIGNS

Current Medications: Galliprant 60 mg SID Gabapentin 200 mg BID Adequan every 4 weeks Flovent HFA 2 puffs BID Cyclosporine 2% 1 drop OU BID UC Davis - Home prepared protein-restricted diet Patient History: Spondylosis T4-T6 Medial luxating patella, right (Grade I/IV) Asthma / Chronic bronchitis Keratoconjunctivitis sicca Chronic Kidney Disease - IRIS Stage 1

Abnormal PE/Chem/CBC/UA Results: Dental calculus, Gingivitis Moderate muscle atrophy affecting the pelvis and rear legs ALP 204 (5-131) Ca 12.5 (8.9-11.4) - MSU Malignancy Panel submitted PLT 437 (170-400) Please see attached BW and previous AUS

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 7.2 cm. A 1.0 cm x 0.50 cm cortical cyst is noted in the caudal pole of the left kidney. The right kidney measures 7.1 cm.

Adrenal Glands

Adrenal glands are small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 0.58 cm at the cranial pole and 0.56 cm at the caudal pole. The left adrenal gland measures 1.58 cm at the cranial pole and 0.41 cm at the caudal pole

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. Some of the debris has strong acoustic shadowing, consistent with mineral, potentially small cholecystoliths. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

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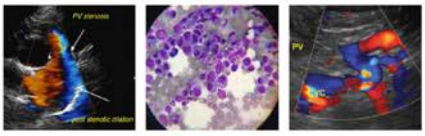

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine 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 pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Splenic micronodular hyperplasia pattern –** This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out.
- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

SECONDARY FINDINGS

- **Flat adrenal glands** – Consistent with historical steroid administration.
- **Gallbladder debris with suspect mineral** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

**This study is not significantly different from the study provided from last year.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's reported hypercalcemia, the reportedly already pending malignancy panel to include PTH, PTHrP, and ionized calcium is recommended.

In the meantime, if not already evaluated, a thorough rectal and perianal exam as well as lymph node palpation peripherally is recommended.

While the splenic changes trend towards the benign and were reportedly similar one year ago (although images are unavailable), if the malignancy panel is suggestive of hypercalcemia of malignancy, a fine needle aspirate of the spleen could be considered if patient's coagulation status is appropriate.

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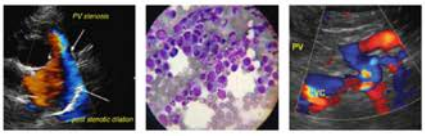

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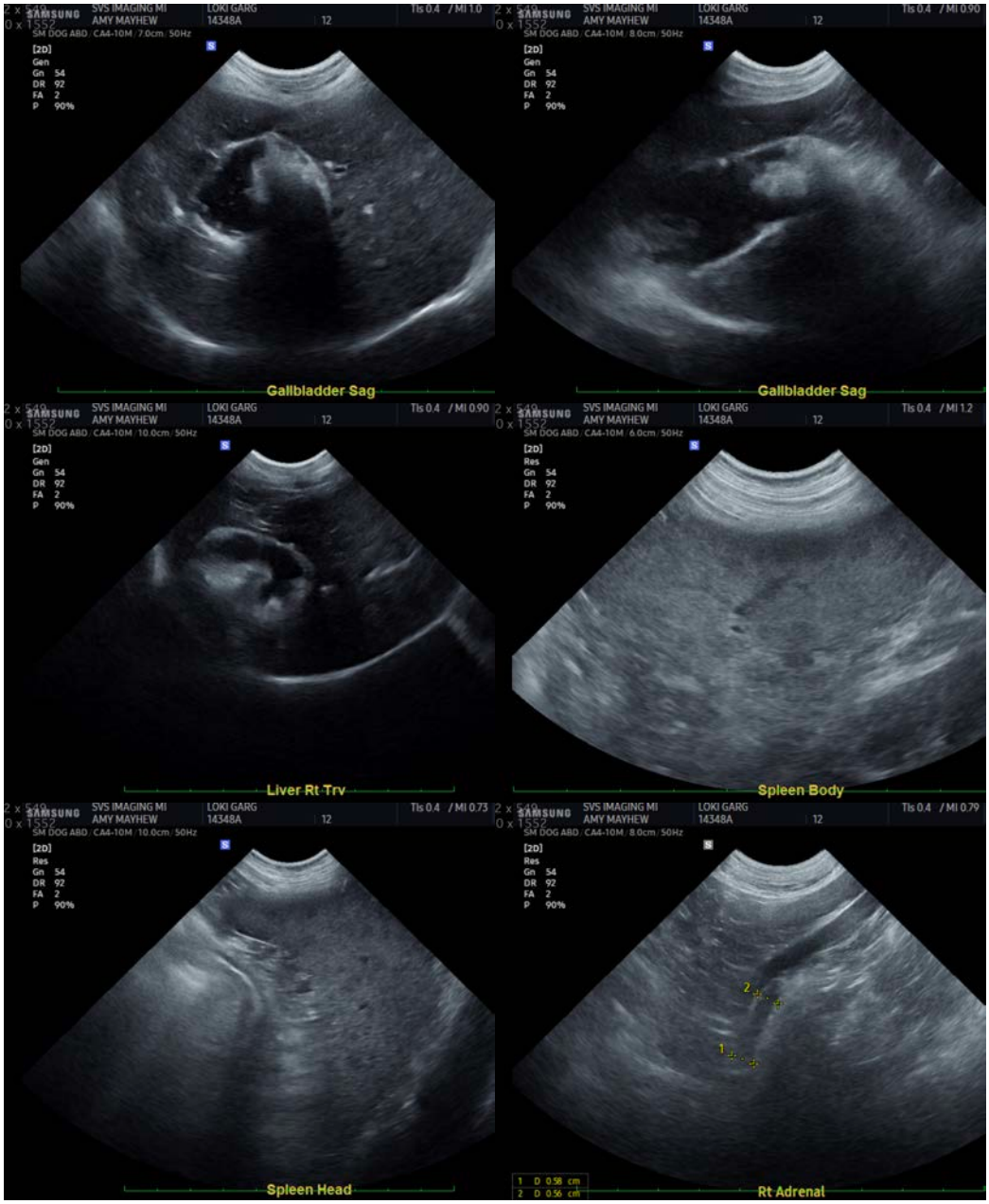

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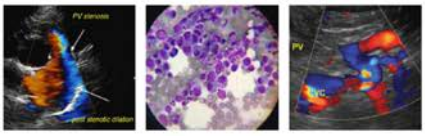

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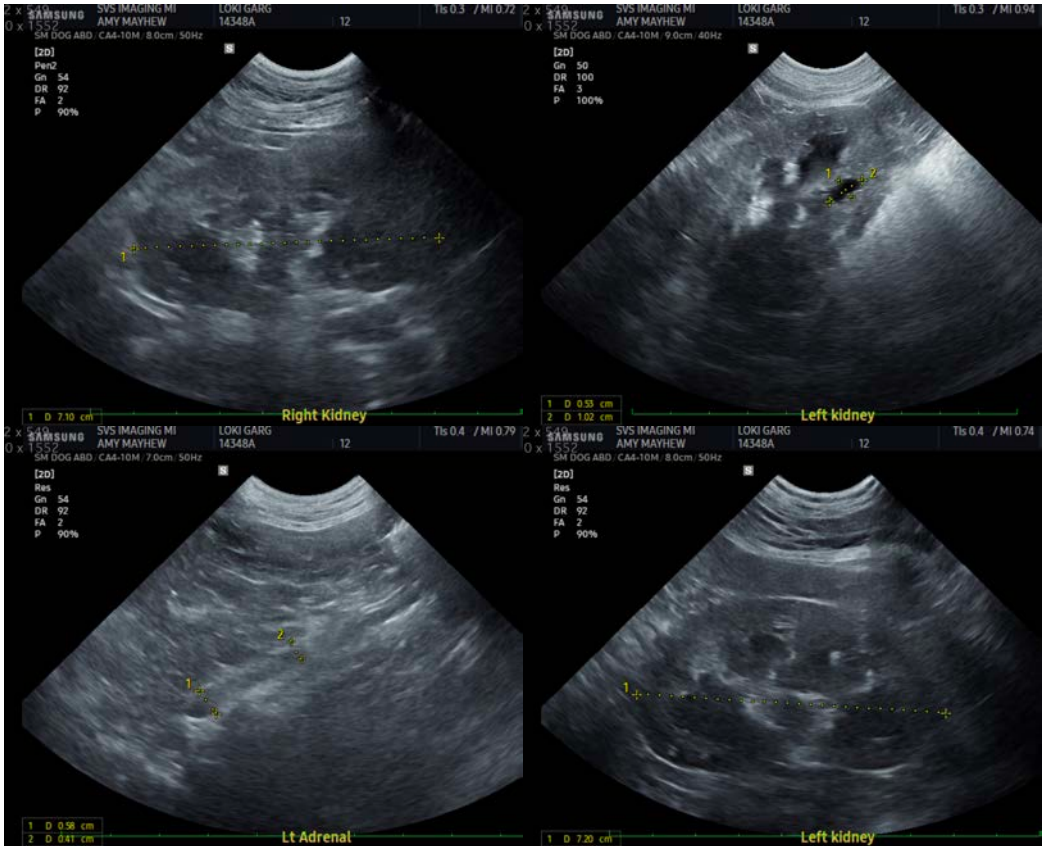

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com