

**DATE PRESENTING CLINICAL SIGNS**

1/5/23

Presented for possible urinary tract issue. Pet had been licking at vulva excessively and had increases in urination and defecation. On exam pet had perivulvar dermatitis. Bloodwork revealed hypercalcemia. Repeat exam showed improved dermatitis but small nodules palpated in each anal gland with the one on the right more prominent. Malignancy panel submitted to MSU supportive of hypercalcemia of malignancy.

PATIENT

Kaylee Smith

SPECIES

Canine

BREED

German Shepherd

SEX

Spayed Female

AGE

9/20/14

WEIGHT

125 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**HOSPITAL NAME**

Fullerton AH

REFERRING VET

Dr. Unger

INVOICE

43975

Current Medications: None.

Lab Results: CA- 12.6 (8.9-11.4), ica- 1.65 (1.25-1.45), Parathyroid hormone- 0.9 (1.1-10.6), Parathyroid Related Protein- 8.3 (0-1.0)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: IV: Butorphanol 10mg/ml (1.2ml) with Midazolam 5mg/ml (1.2ml).

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

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.

The right kidney is normal in size (7.03 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, mineral or infarcts observed.

The left kidney is normal in size (7.9 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, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (2.54 cm long x 0.79 cm at the cranial pole and 0.66 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (The left adrenal is normal in size (2.68 cm long x 0.60 cm at the cranial pole and 0.61 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The 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 focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The 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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 (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.

Sublumbar lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail. The visualized lymph node has an anechoic/cystic center.

The left anal gland is visualized and appears to be fluid filled. A nodule cannot be ruled out if one was palpated but is not visible.

The right anal gland appears more solid and slightly hypoechoic with a small cystic area noted, consistent with the palpated nodule in the right adrenal gland.

ULTRASONOGRAPHIC FINDINGS

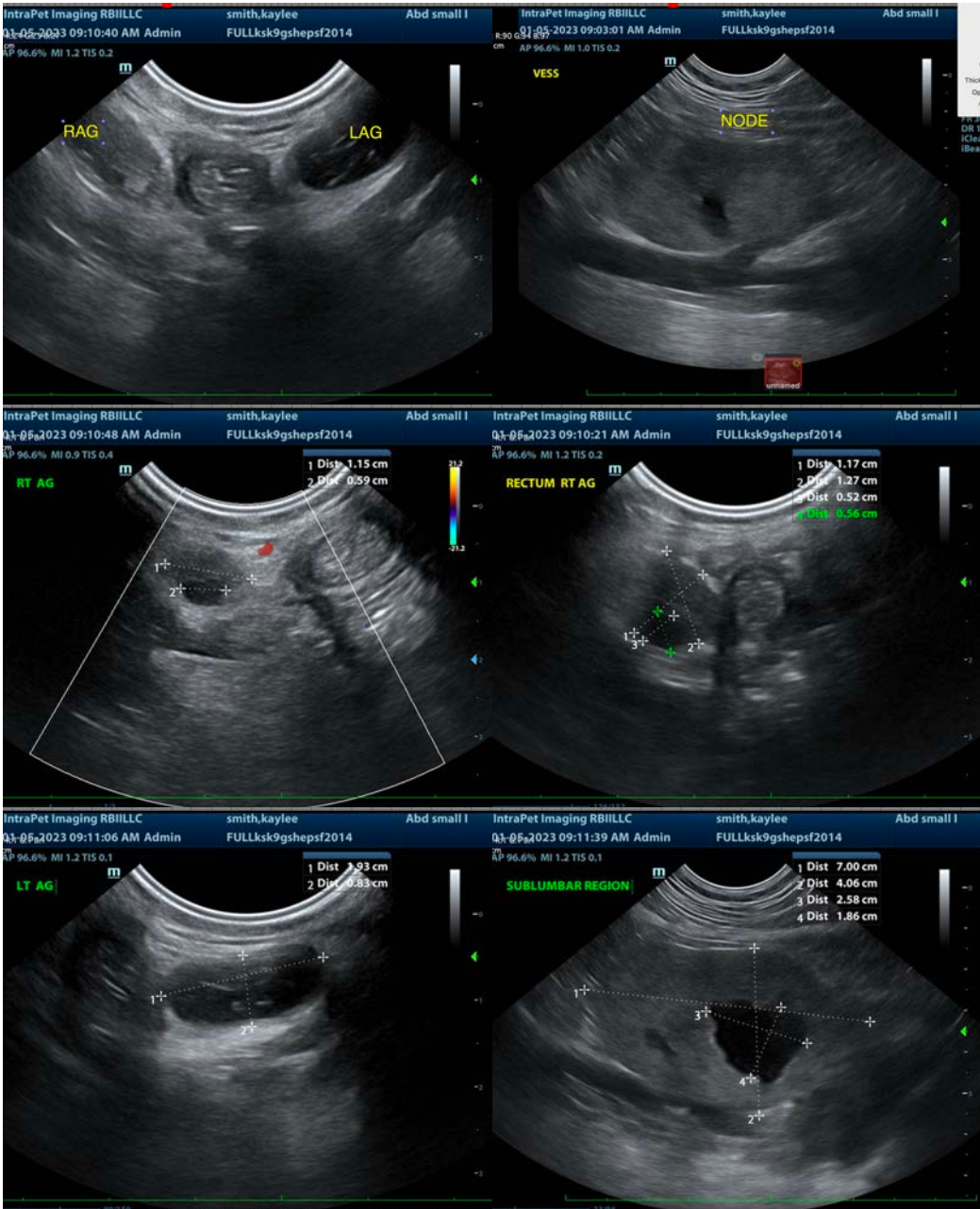
- **Right anal gland nodule** – concerning for anal gland adenocarcinoma, given the reported hypercalcemia of malignancy results. Given that a nodule was also palpated in the left anal gland, a left anal nodule can't be ruled out but was not visualized.
- **Aggressive sublumbar lymph nodes** – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

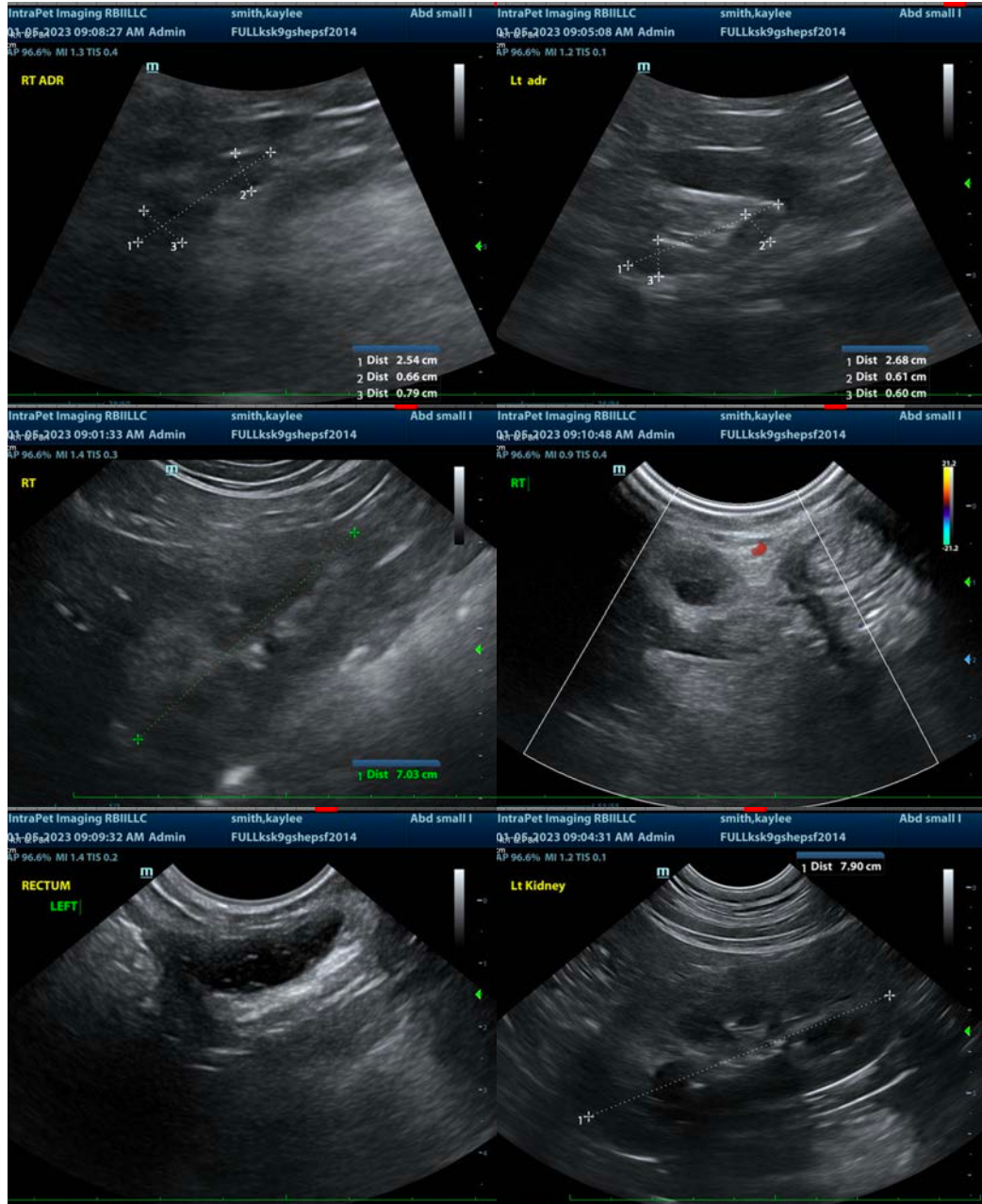
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of these images is concerning for metastatic disease from the anal gland tumor to the sublumbar lymph nodes. Recommendations include:

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

Surgery is recommended for removal of the right anal gland nodule as well as a left anal gland nodule (if present), in addition to potential removal of the sublumbar lymph nodes pending additional consultation with an oncologist and/or veterinary surgeon for their opinion on next steps.





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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