

**DATE PRESENTING CLINICAL SIGNS**

5/25/22 Lethargic, lack of appetite, vomiting.

PATIENT

Riley Moats

Current Medications: Doxycycline 100mg, Famotidine 20mg, Cerenia 3mL, Buprenex SR, Baytril 25mg, Cefazoline 8mL, Mirtazapine 15mg.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Declined / Not requested.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Goldendoodle

Urinary System

The urinary bladder is moderately distended with anechoic urine. 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 cystic calculi.

SEX

Neutered Male

The prostate is normal in size (1.1 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

AGE

5/1/11

The left kidney is large and irregular with decreased corticomedullary distinction. There is no evidence of perinephric inflammation or effusion. There are numerous distinct hypoechoic nodules visualized within the cortex of the kidney. Two such nodule measure 1.99 cm x 1.29 cm, and 2.1 cm x 1.89 cm. There is regional perinephric inflammation and a small amount of effusion. There is no evidence of pyelectasia, nephroliths, or hydroureter. The left kidney measures 7.07 cm.

WEIGHT

66 Pounds

The right kidney is large and irregular in shape with decreased corticomedullary distinction. There is evidence of perinephric inflammation and a small amount of effusion. There are numerous hypoechoic nodules visualized within the cortex, the largest of which is a mass effect cranial to the kidney measuring 4.3 cm x 3.55 cm. This lesion appears to be either originating from the cortex and growing out and extending into the caudal vena cava, or more likely is consistent with a right adrenal mass invading the kidney and caudal vena cava.

INTERPRETED BY

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Medicine)

IMAGING PERFORMED BY

Rachel Brilhart RDMS

Adrenal Glands

The left adrenal gland is normal in size measuring 0.55 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.

HOSPITAL NAME

Mt Airy AH

There is a large, irregular, hypoechoic mass near the cranial aspect of the right kidney, measuring 4.3 cm x 3.55 cm (see description under right kidney). I suspect this mass lesion represents a right adrenal mass invading into the right kidney and caudal vena cava.

REFERRING VET

Dr. Atchley

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

INVOICE

37963

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. 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. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

There is scant free fluid. There is a large, hypoechoic portal lymph node visualized measuring 1.14 cm. The omentum is of increased echogenicity around the kidneys.

Other

The caudal vena cava is visualized cranial to the right kidney. It is distended, measuring approximately 2.76 cm in diameter, and appears to have a large amount of mixed echogenic material intraluminally, most consistent with an occlusive mass effect or clot.

ULTRASONOGRAPHIC FINDINGS

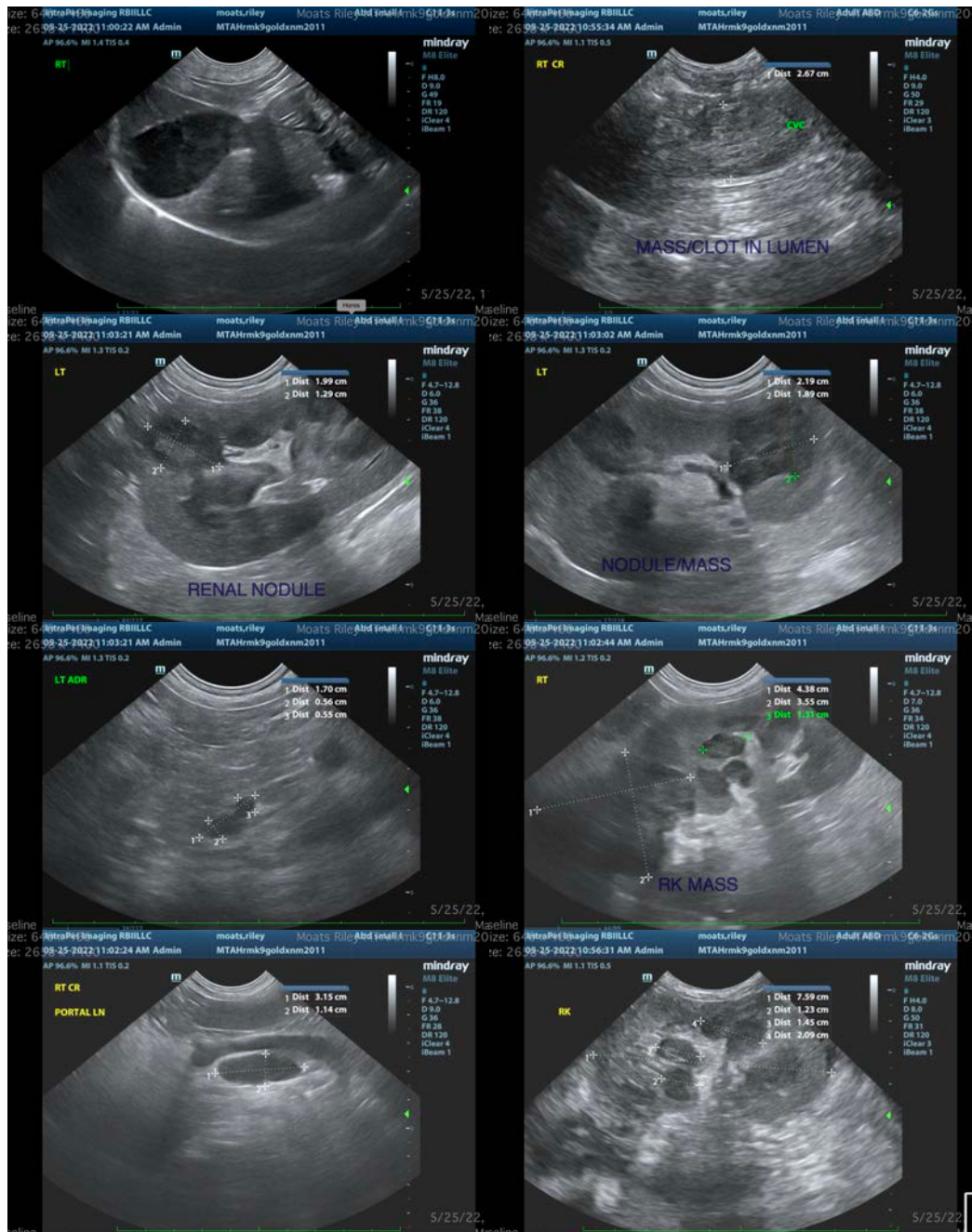
- Bilateral hypoechoic renal cortical nodules – findings are concerning for possible metastatic neoplasia. Recommend a fine needle aspirate.
- Hypoechoic, irregular mass effect cranial to the right kidney, which appears to be invading the kidney and caudal vena cava – suspect this is an invasive right adrenal mass, most likely pheochromocytoma.
- Intraluminal mass or clot within the caudal vena cava – This appears to be an almost complete obstruction based on color flow evaluation.
- Large, hypoechoic portal lymph node – This is concerning for metastatic disease, although inflammatory or reactive lymph node is possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are bilateral renal nodules and a mass cranial to the right kidney, which appears to be invading the right kidney and caudal vena cava. The appearance of these lesions would be most consistent with metastatic neoplasia, possibly originating from a right adrenal mass with caval invasion. A fine needle aspirate of a renal nodule could be considered as well as a contrast CT scan to better delineate these lesions. If a diagnosis can

be obtained, consider consultation with a veterinary oncologist regarding treatment options and prognosis.

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



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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