



PATIENT

Thunder Ruby

SPECIES

Canine

BREED

Great Dane

SEX

Neutered Male

AGE

7 Years

WEIGHT

146 lbs

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Nikki Kollman, RVT

HOSPITAL NAME

Airpark Animal
Hospital

REFERRING VET

Dr. Laura Owens

INVOICE

74821

DATE

4/29/26

PRESENTING CLINICAL SIGNS

R radius osteosarcoma diagnosed 10/25. Undergoing radiation and chemotherapy at NC state university and cancer vaccine through Yale. Primary tumor has appeared stable. Here for routine recheck thoracic rads today for oncologist, submitted to Vet Rad. Owner noticed bowing posture and retching, discomfort last night into this morning so also did abdominal rads and POC ultrasound. Mass effect mid abdomen and kidney abnormalities noted so recommended a full ultrasound.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney is large and irregular, measuring 9.52 cm, with mildly reduced corticomedullary distinction. In the sagittal view there is abnormal expansile, hypoechoic tissue visualized, which creates a hypoechoic/mixed echogenicity mass effect when visualized in the transverse view of the kidney, measuring 3.7 cm x 5.71 cm. There is no evidence of effusion, but there is mild inflammation surrounding the kidney. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is borderline large and irregular in shape, measuring 8.97 cm. Towards the mid aspect of the kidney there is a poorly defined hyperechoic, mixed echogenicity mass effect visualized measuring 5.09 cm x 5.87 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is scant effusion present and some inflammation surrounding the kidney. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

*Differentiation between the right and left kidney can be difficult in some views in such as large, deep chested dog.

Adrenal Glands

The left adrenal gland is large in size measuring 1.66 cm at the cranial pole and 1.69 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.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

Spleen

The spleen is subjectively normal in size (2.19 cm), 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.



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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 gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and likely incidental at this time. 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. Jejunum wall measures 0.35 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 area of 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 visualized around the right kidney. There is no significant lymphadenopathy. The omentum is mildly reactive around the kidneys.

ULTRASONOGRAPHIC FINDINGS

- Large left adrenal gland – Possible differentials include hyperplasia, adenoma, carcinoma, pheochromocytoma, infiltrative neoplasia, etc.
- Large, irregular kidneys with focal poorly defined mass effects – Findings are concerning for metastatic neoplasia, although primary renal neoplasia and/or other lesions (granuloma, abscess, etc.) are possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both kidneys appear abnormal with poorly defined irregular mixed echogenicity mass effects. Given the concurrent diagnosis, metastatic lesions would be a significant concern. Overt mineralization is not noted. Consider a fine needle aspirate of both lesions (provided coagulation parameters and blood pressures are normal). Additionally consider a contrast CT scan to better evaluate these lesions and confirm locations in such as large, deep chested patient.



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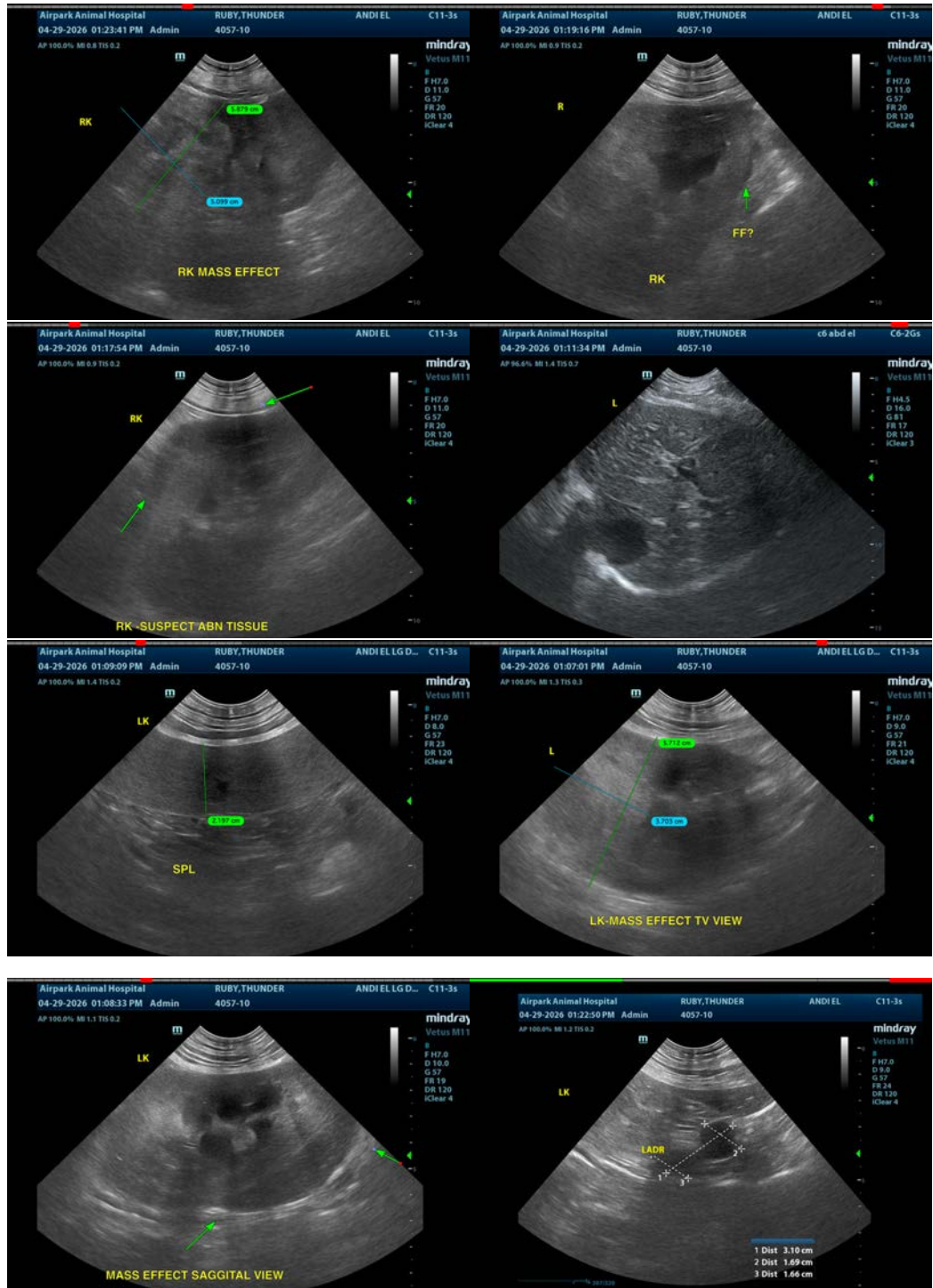
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The significance of the enlarged left adrenal is uncertain. Continued monitoring is strongly recommended.





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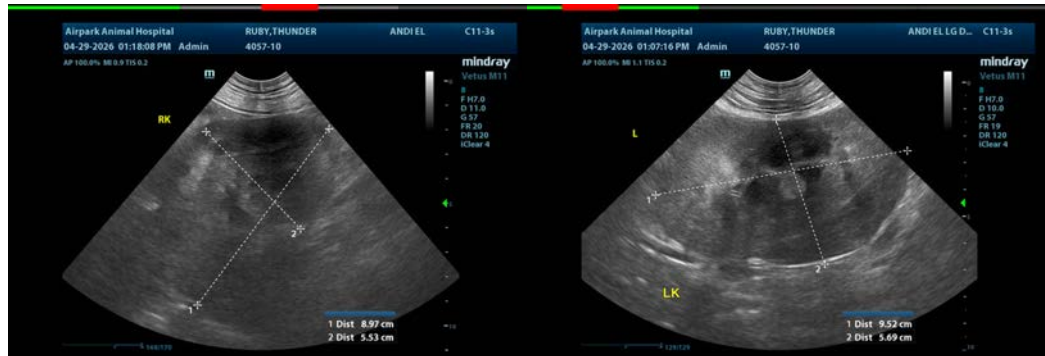
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

info@sonopath.com