

**DATE PRESENTING CLINICAL SIGNS**

7/8/22

Okie is a 14 y/o MN Jack Russell who presents for lethargy, anorexia, and crying when picked up – started with limping on paw, O thought just a soft tissue injury, jumps around a lot - Thursday would not get off couch - lethargic, not eating - drinking normally - no change in urination, no diarrhea - has vomited twice, no blood, did vomit up cupcake wrap - no C/S - No known FB ingestion, cupcake he got into was not chocolate
Medications: - none, no preventatives

PATIENT

Okie Gorrera

SPECIES

Canine

Current Medications: Buprenorphine, Amoxicillin, Ondansetron, Gabapentin, Denamarin.

Lab Results: See attached.

Radiographs: Fast scan- trace free abdominal fluid.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Jack Russell X

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

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.

AGE

2/28/08

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.

WEIGHT

26.2 Pounds

The left kidney has a normal shape and size (4.53 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
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(Small Animal Internal
Medicine)

The right kidney has a normal shape and size (3.98 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Rachel Brillhart RDMS

Adrenal Glands

The left adrenal gland is normal in size measuring 0.60 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

Animal Emergency
Hospital

The right adrenal gland is normal in size measuring 0.68 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Thompson

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

39346

Liver

The liver is subjectively normal in size, hypoechoic and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous ill-defined heterogeneous hypo- to isoechoic mass lesions visualized

within the liver. One of these is visualized at 4.05 cm x 3.24 cm. Another measures 3.72 cm x 2.38 cm. The omentum surrounding the liver appears hyperechoic and inflamed.

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 prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. No significant lymphadenopathy. The omentum is hyperechoic surrounding the liver.

ULTRASONOGRAPHIC FINDINGS

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Heterogeneous, hypoechoic liver with ill-defined heterogeneous mass effects and surrounding inflammation – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The mass lesions observed could be consistent with benign or neoplastic lesions. The surrounding hyperechoic mesentery could be reactive secondary to inflammation, infection, etc.

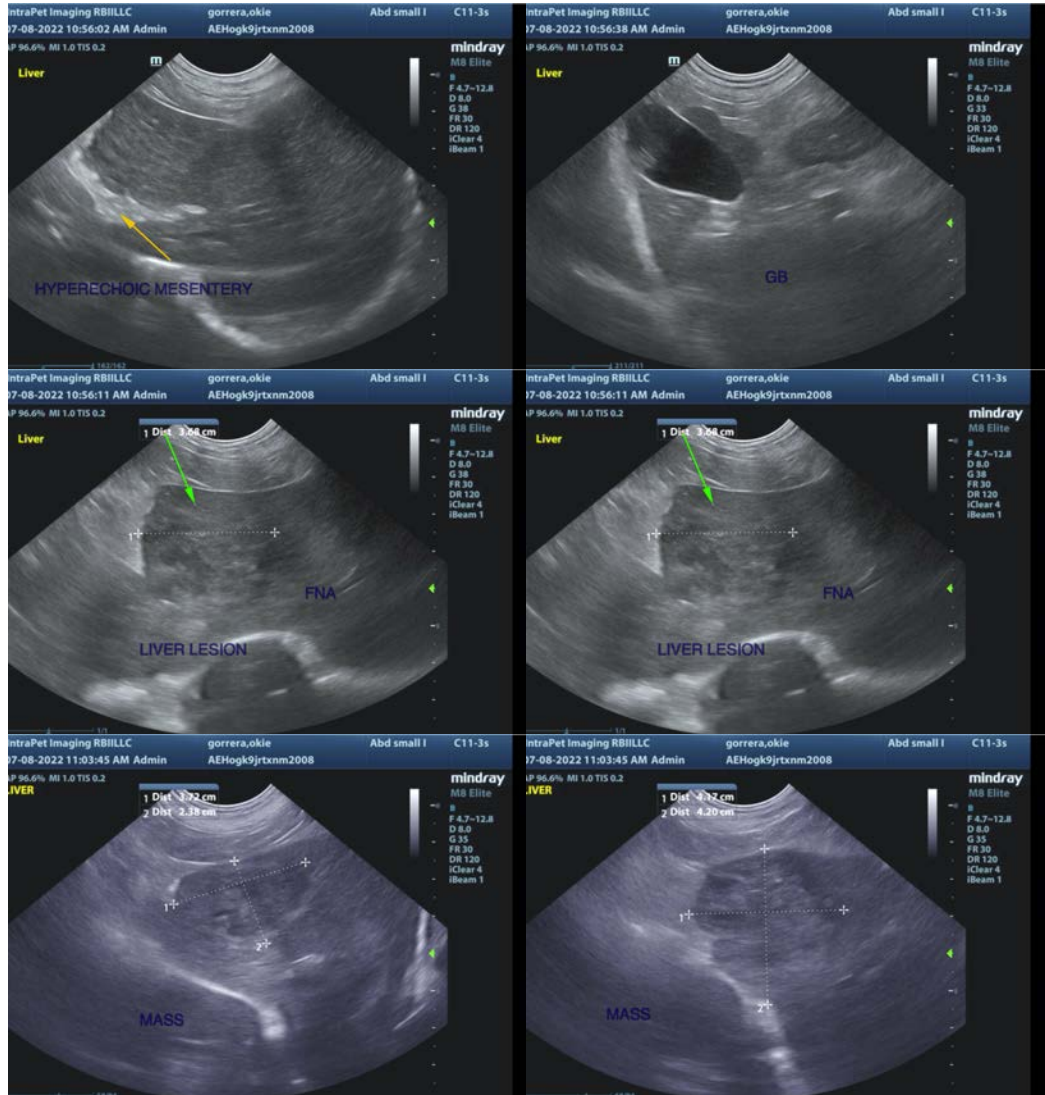
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

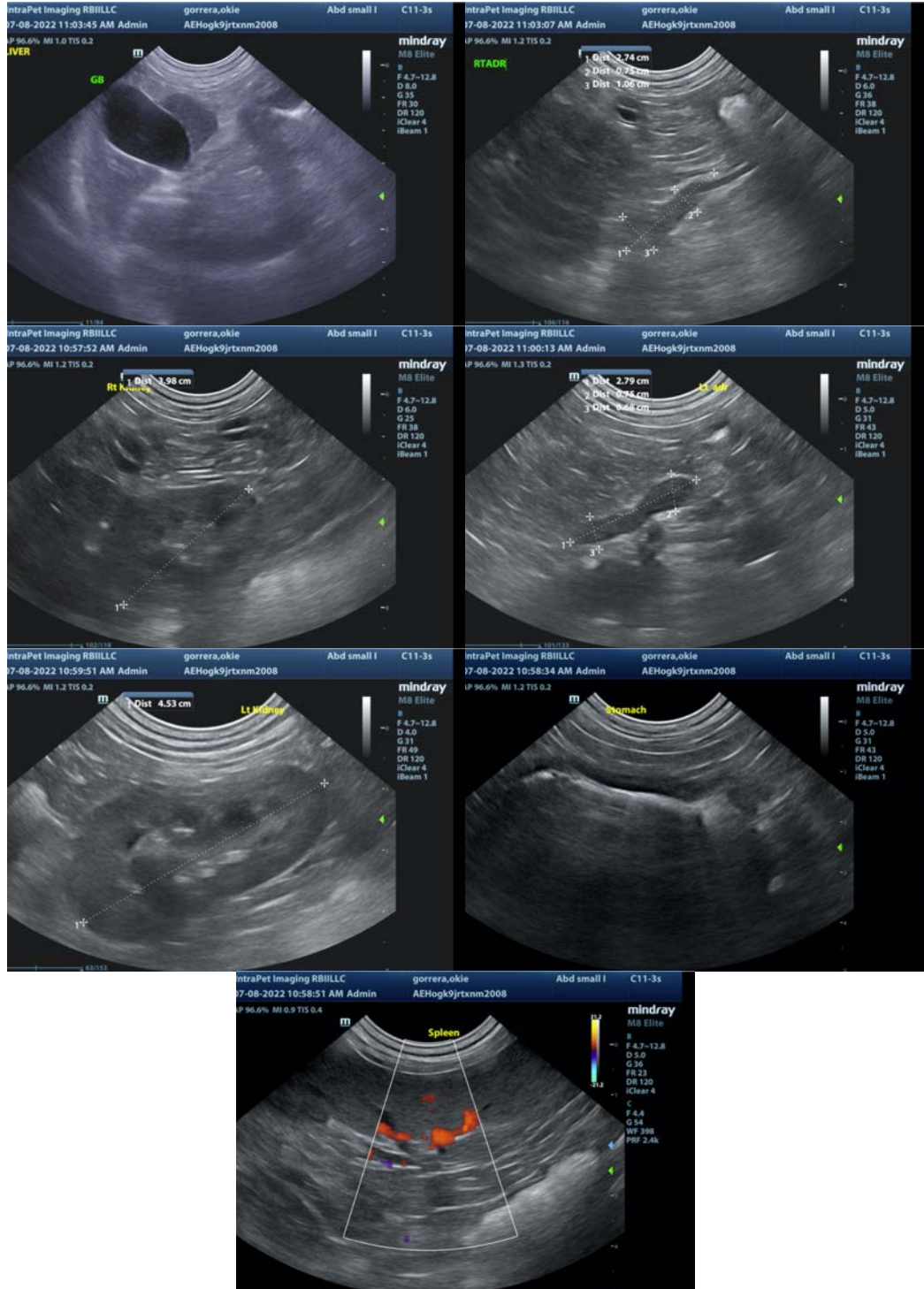
The liver appears hypoechoic, mottled, and is surrounded by hyperechoic mesentery as if significantly inflamed. Additionally, there are multiple moderate sized heterogeneous mass lesions associated with the liver. The pancreas is also slightly mottled, and some of the inflammation could be secondary to pancreatitis, but the majority of the inflammation appears to be surrounding the liver. Recommend a fine needle aspirate of both “normal” appearing liver and mass lesions. Recommend symptomatic therapy for acute hepatitis/liver injury with antibiotics, Denamarin, supportive medications (anti-nausea, fluids, etc.).

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

If a cytologic diagnosis cannot be obtained and this patient is not responding to symptomatic therapy, then consider advanced imaging of the liver and possible surgical biopsies/resection of masses if possible.

Additionally, treat symptomatically for pancreatitis with pain medication, etc., as it is difficult to differentiate the source of the inflammation.





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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