



PATIENT

Rusty Hunt

SPECIES

Canine

BREED

Lab Mix

SEX

MN

AGE

12

WEIGHT

35

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Dr. Brita Kiffney

HOSPITAL NAME

Northshore VH

REFERRING VET

Dr. Brita Kiffney

INVOICE

14430

DATE

7/27/22

PRESENTING CLINICAL SIGNS

for past 10 days patient has had reduced appetite (will only eat hot dogs), vomiting after eating often, usually several hrs after eating. Usually vomits bile and grass. No pu/pd per owner. No known hx of toxin or FB ingestion. Has lost ~6# in past 4 weeks.

Abnormal PE/Chem/CBC/UA Results: bloodwork (elevated liver enzymes, bilirubin and globulin), fecal is pending, 3 view chest/abd radiographs (didn't send in as suspect will submit w/ U/S images).

Appears to be an area of soft tissue mineralization in right anterior abd near prox. duodenum.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was normal in size and tone containing anechoic urine primarily with mild dependent luminal mineral. The urethra exhibited normal structure and tone to a depth of 3.0 cm.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint medullary mineral was present. No evidence of pelvic dilation was present. The left kidney measured 5.4 cm in length. The right kidney measured 6.6 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.93 cm width at the caudal pole and 0.75 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.79 cm width at the caudal pole and 0.60 cm width at the cranial pole.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. Evidence of mild lobar biliary tree dilation was present in the subjective mid to right liver. The gallbladder was distended in size containing primarily anechoic content with very minor echogenic luminal debris. The gallbladder



PATIENT	walls were sonographically unremarkable. No evidence of gallbladder or peripheral gallbladder inflammation was noted.
Rusty Hunt	
SPECIES	<i>Gastrointestinal</i>
Canine	The stomach presented intact yet mildly prominent wall layering. A moderate amount of retained anechoic fluid was present in the stomach.
BREED	The discernable upper duodenum exhibited intact to mildly indistinct wall layering with evidence of mural thickening with the ventral aspect of the upper duodenum wall measuring approximately 0.86 cm wall width. The visualized mid duodenum exhibited intact and sonographically unremarkable wall layering. By comparison, the mid-duodenum wall measured 0.38 cm width.
Lab Mix	
SEX	Normal visible colon wall layers were present with apparent formed feces in lumen.
MN	
AGE	<i>Pancreas</i>
12	The discernable right pancreatic limb exhibited isoechoic to mildly heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
WEIGHT	<i>Free Abdomen</i>
35	A large, nonhomogeneous mass with areas of mineralization was present in the right cranial abdomen. In the area of the pancreas base and right pancreatic limb, as well as the upper duodenum, measuring approximately 6.0 cm in diameter. Regional hyperechoic mesentery potentially indicative of mild regional peritonitis was present. No overt evidence of peritoneal free fluid was noted. No overt evidence of associated lymphadenopathy was noted.
INTERPRETED BY	ULTRASONOGRAPHIC FINDINGS
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<i>Primary Findings</i>
IMAGING PERFORMED BY	<ul style="list-style-type: none"> • Hepatopathy exhibiting evidence of mild lobar biliary tree dilation • Distended gallbladder • Mildly thickened discernable upper duodenum exhibiting indistinct wall layer detail • Moderately sized to expansive, nonhomogeneous to mineralized mass right cranial abdomen In area of duodenum and pancreas base / right pancreatic limb • Mild hypomotile stomach
Dr. Brita Kiffney	<i>Secondary Findings</i>
HOSPITAL NAME	<ul style="list-style-type: none"> • Bilateral mild chronic renal changes • Mild dependent urinary bladder mineral
Northshore VH	
REFERRING VET	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Dr. Brita Kiffney	The mass in the right cranial abdomen is consistent with neoplastic criteria given the location of the mass and likely involvement of both the upper duodenum and pancreas. The definitive origin of the mass was difficult to ascertain. However, the involvement of both the upper duodenum and pancreas is
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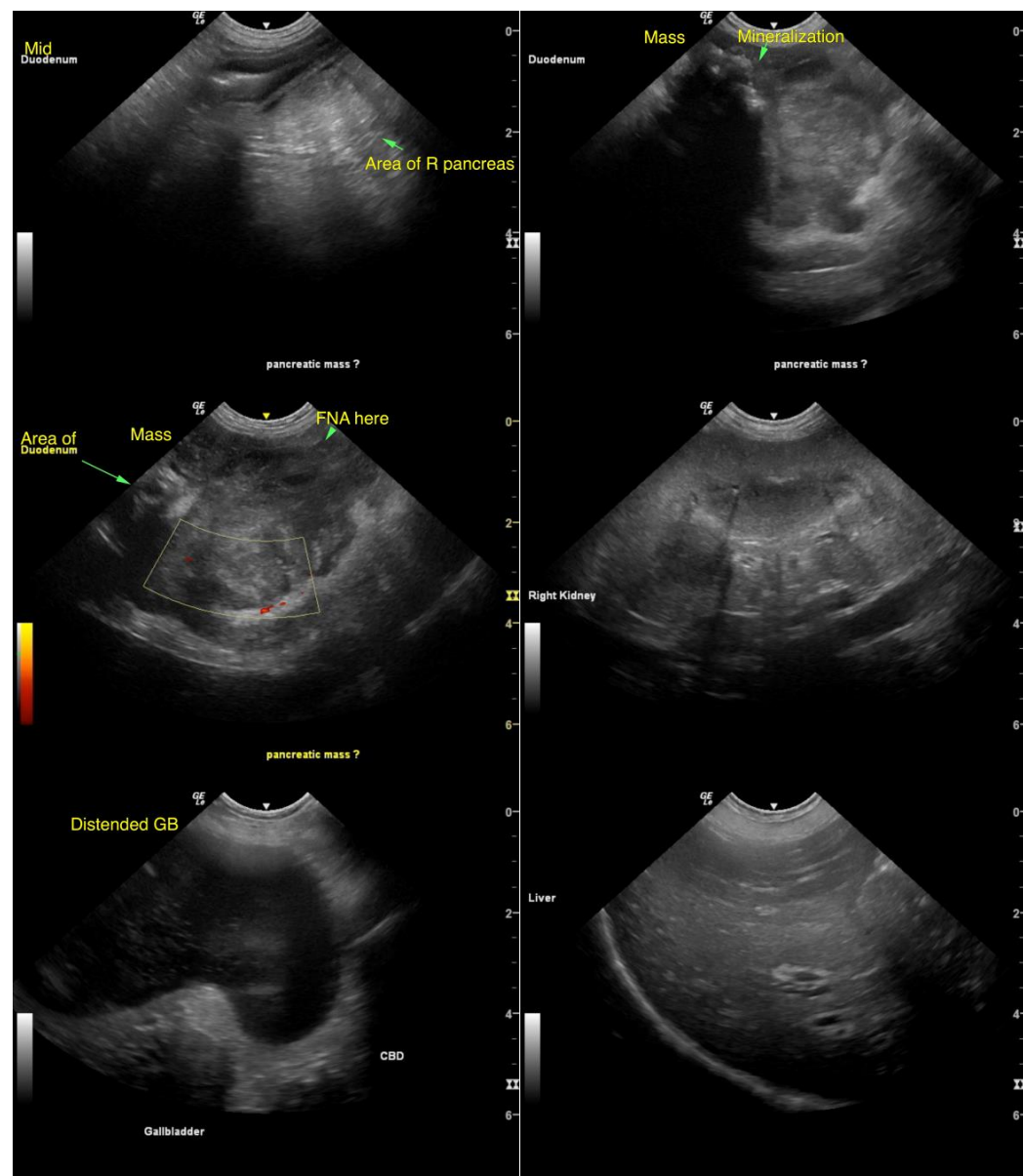
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strongly suspected. Likewise, obstruction to bile flow as exhibited by the distended gallbladder, evidence of lobar biliary tree dilation, and elevated hepatic enzymes, is likely.

Assuming normal clotting status ultrasound-guided FNA of the mass could be considered for screening cytology and potential further clarification. Surgery is likely to be complicated and potentially precluded In this case. Abdominal CT could be considered for further assessment. Three-view chest radiographs are suggested.





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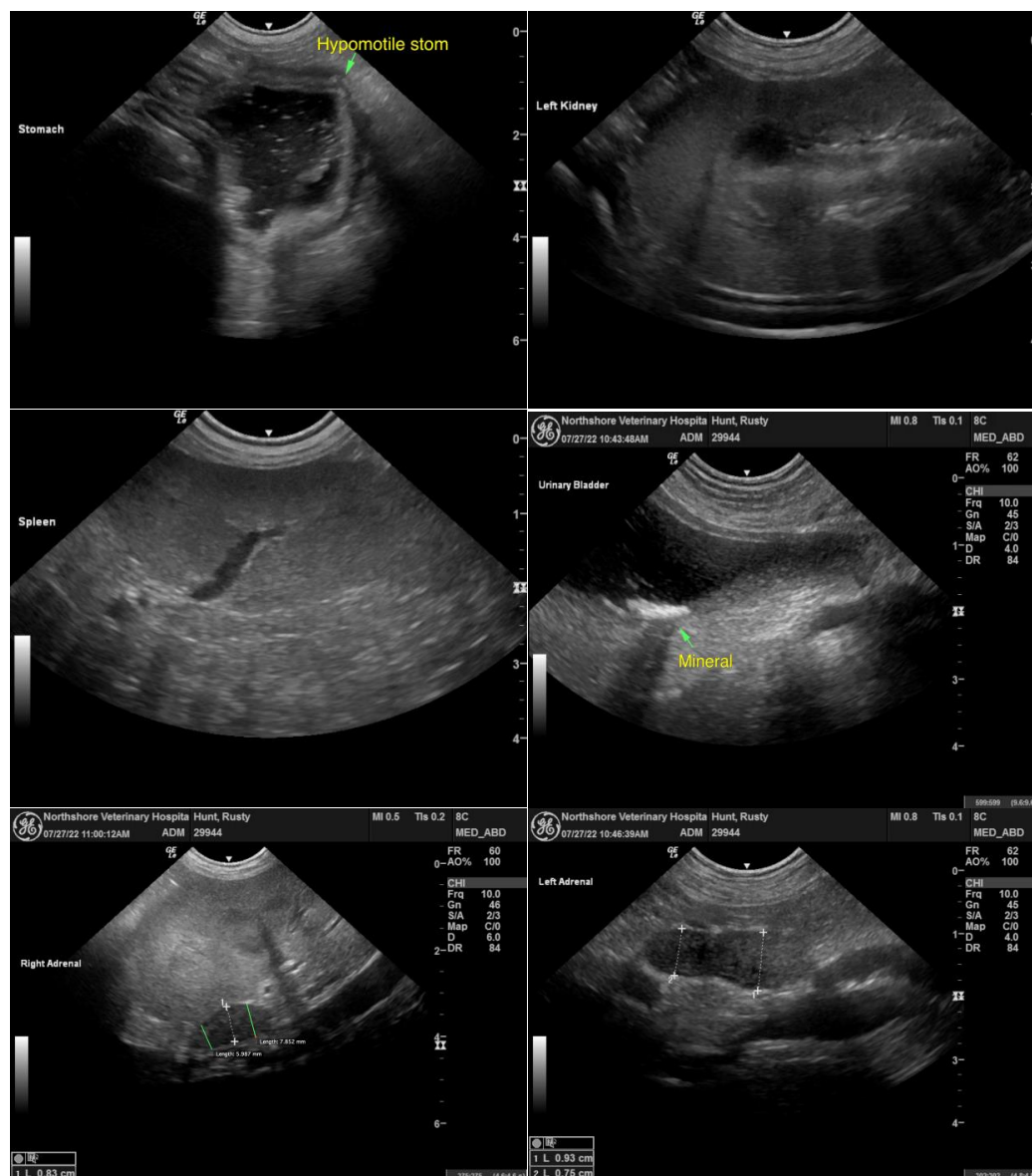
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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