



**PATIENT PRESENTING CLINICAL SIGNS**

Brody Hayes  
History: Weight loss, abdominal discomfort, decreased appetite  
Abnormal PE/Chem/CBC/UA Results: ALP 934, T4 <0.5

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine  
*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 4-5 cm, are normal.

**BREED**

German shepherd mix

**SEX**

The prostate is normal in size (1.54 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

Male, neutered

The left kidney is normal size (9.10 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

10 Yrs.

The right kidney is normal size (8.92 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

*Adrenal Glands*

The left adrenal gland is normal size (0.82 cm at cranial pole) (0.81 cm at caudal pole) (3.68 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (1.41 cm at cranial pole) (0.82 cm at caudal pole) (3.99 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Jessica Miller

*Spleen*

**HOSPITAL NAME**

Newton VH

The spleen is normal in size (1.75 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

*Liver*

**REFERRING VET**

Dr. Chabora

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. A large amount of suspended echogenic sludge in a stellate pattern is observed within the lumen. The common bile duct is mildly dilated (up to 0.47 cm). There is no obvious evidence of an intraluminal obstruction. The mesentery adjacent to the gallbladder is slightly hyperechoic.

**INVOICE**

14444

*Gastrointestinal*

**DATE**

1/16/23



**PATIENT**

Brody Hayes

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally distended with mild ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

**SPECIES**

Canine

***Pancreas***

**BREED**

German shepherd mix

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

***Free Abdomen***

**SEX**

Male, neutered

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

***Other***

**AGE**

10 Yrs.

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

**WEIGHT**

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- The gallbladder changes are consistent with a fully formed mucocele. Concurrent cholecystitis/cholangitis is possible. There is suspected mild adjacent peritonitis.
- The hepatic parenchymal changes are most consistent with regenerative nodular hyperplasia and/or vacuolar hepatopathy. Inflammatory disease is considered less likely in light of the normal ALT. Infiltrative neoplasia is possible but considered less likely.

**Secondary Findings:**

- The presence of ingesta within the gastric lumen despite fasting suggests some delayed gastric emptying.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(*Small Animal Internal  
Medicine*)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- A cholecystectomy with submission of the gallbladder should be considered due to the potential for gallbladder rupture with subsequent bile/septic peritonitis. Liver biopsies should also be obtained at the time of surgery.
- If surgery is not pursued, initiation of Ursodiol therapy, broad spectrum antibiotics and supportive care is recommended along with close sonographic monitoring of the gallbladder to assess for progression/rupture.

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PERFORMED BY**

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**BREED**

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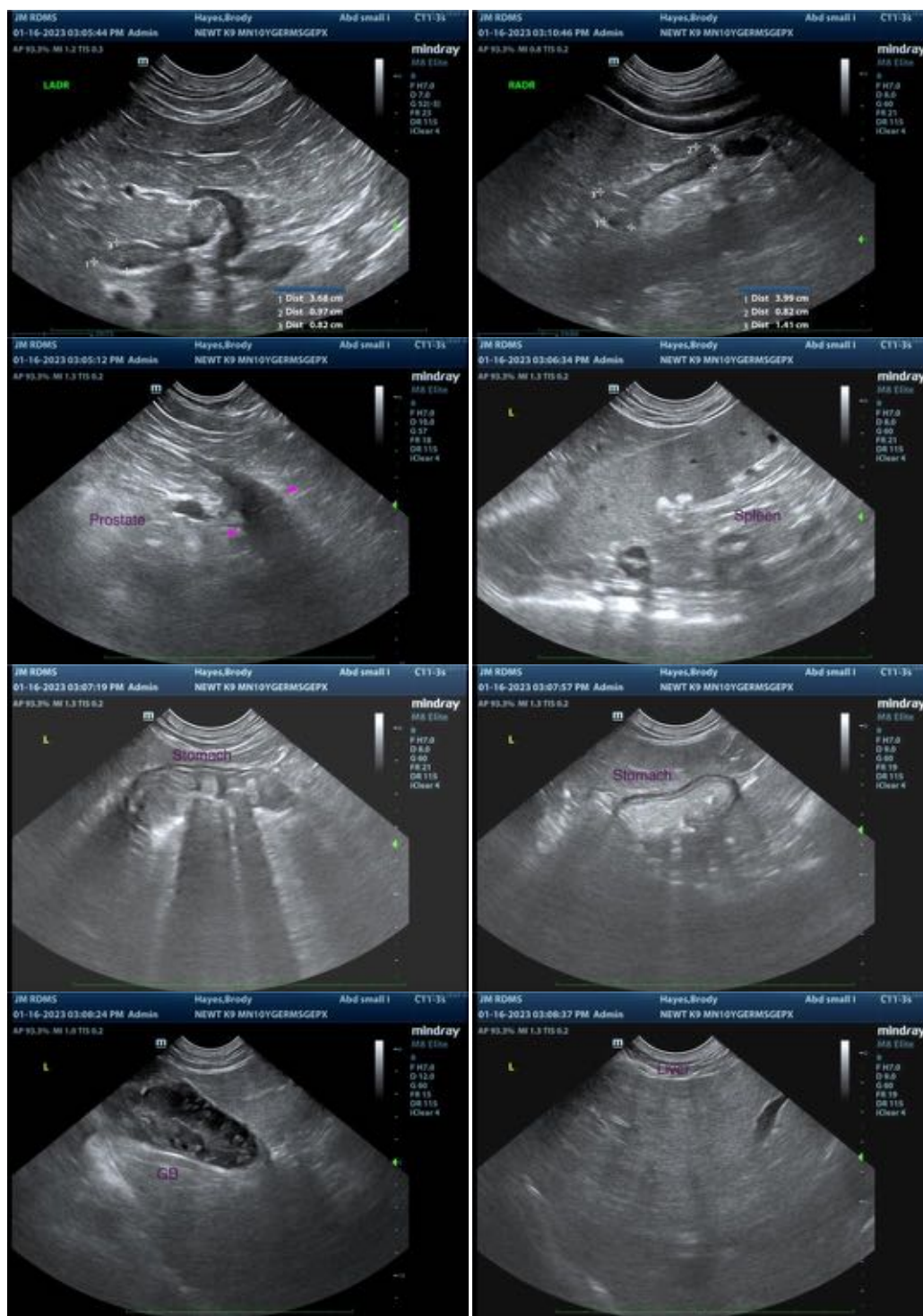
Dr. Chabora

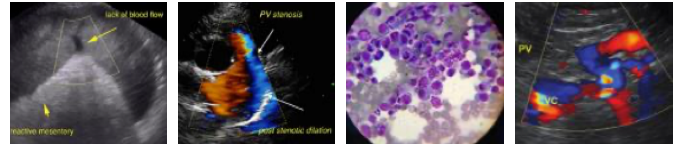
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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