

PATIENT

Cooper Hetzel

SPECIES

Canine

BREED

Shih Tzu

SEX

Male, neutered

AGE

11 Yrs.

WEIGHT

10.4 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Meadowlawn

REFERRING VET

Dr. Clemons

INVOICE
13347

DATE
12/17/25

PRESENTING CLINICAL SIGNS

Pt has a history of elevated liver values. On ultrasound performed in October, the patient had a developing mucocele and hepatic changes most consistent with a vacuolar hepatopathy and bilateral adrenomegaly. This is a follow-up. Bloodwork on 11/10/25 showed an ALP of 439, ALT normal, ALP previously 341.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is mildly distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.78 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (3.82 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (3.59 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size at the cranial pole and mildly enlarged at the caudal pole (0.52 cm at cranial pole) (0.75 cm at caudal pole). The glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (0.79 cm at cranial pole) (0.71 cm at caudal pole) with swollen peripheral contours. The glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

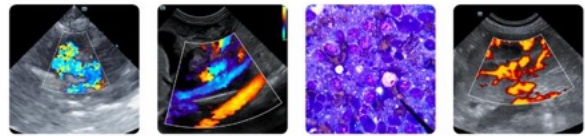
The spleen is normal in size (0.70 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1.

The gall bladder lumen is distended. The wall is normal in thickness. A moderate to large amount of aggregated, echogenic, partially dependent to suspended sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal



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The gastric lumen is mildly to moderately distended with 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileoceocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas

The left limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Lymph nodes

The abdominal lymph nodes are normal/not visible.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion.

Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gallbladder changes are consistent with a developing mucocele. Changes are similar to the previous sonogram.
- The diffuse hepatic changes are most consistent with vacuolar hepatopathy (i.e., endocrine, idiopathic) with a lower possibility of inflammatory disease, infiltrative neoplasia, or other hepatopathy. Changes are similar to the previous sonogram.
- Bilateral adrenomegaly. Changes are similar to the previous sonogram.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis. Changes are similar to the previous sonogram.
- Bilateral nonspecific, age-related renal changes with dystrophic mineralization. Changes are similar to the previous sonogram.
- If the patient was fasted for this study, the presence of ingesta within the gastric lumen could suggest delayed gastric emptying.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Consider a prophylactic cholecystectomy with submission of the gallbladder for histopathology and cultures. If surgery is pursued, liver biopsies should also be obtained along with hepatic copper quantitation. If surgery is not pursued, continued Ursodiol therapy is recommended with sonographic monitoring (i.e., every 6-8 weeks) of the gallbladder to assess progression to a fully formed mucocele. Liver values should also be monitored every 3-4 months.



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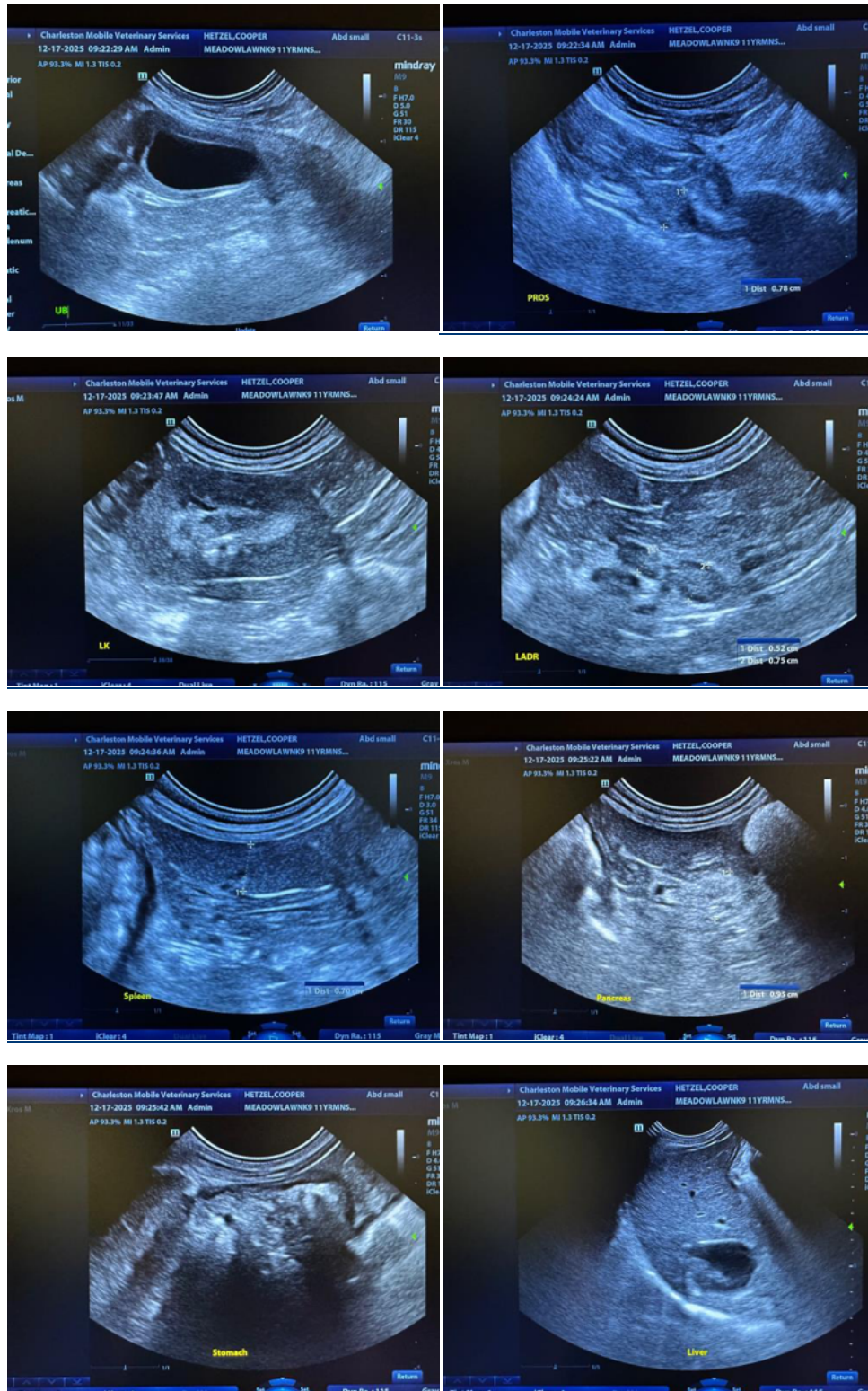
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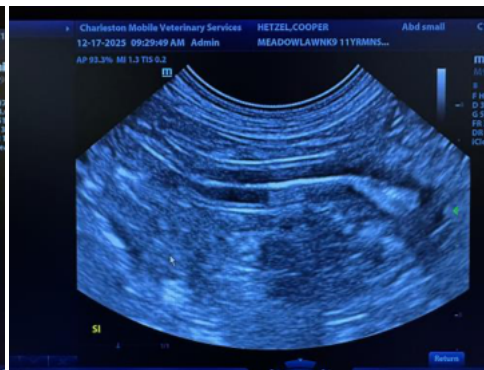
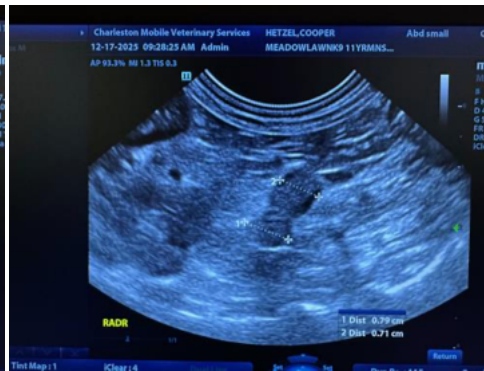
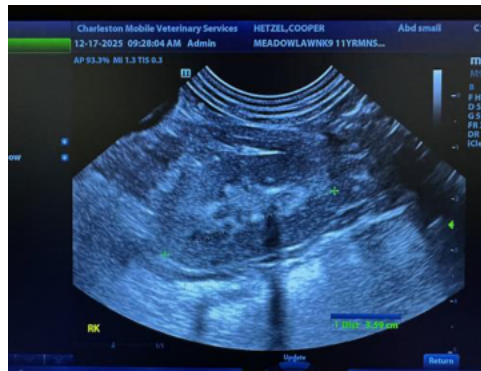
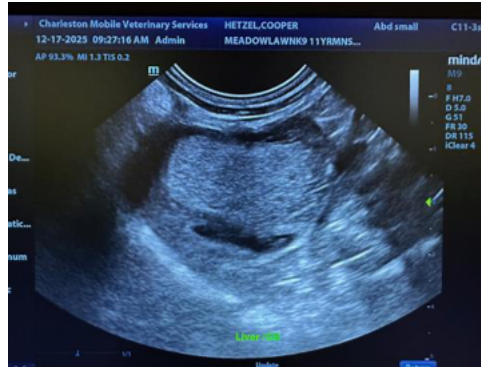
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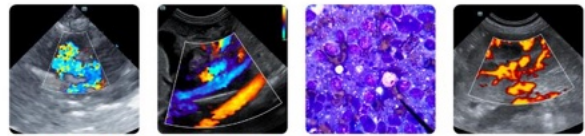
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com