



PATIENT PRESENTING CLINICAL SIGNS

Kimmy Edwards Recheck from May 2022 for developing gall bladder mucocele. Patient has a history of Cushing's Disease and is on veteryl.

SPECIES

Canine

BREED

Pug Mix

SEX

Spayed Female

AGE

3.24.2008

WEIGHT

23 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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HOSPITAL NAME

Flowertown AH

REFERRING VET

Dr. Kline

INVOICE

11222

DATE

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ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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 2 cm, are normal.

The **left kidney** is normal in size (4.91 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortex. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The **right kidney** is normal size (5.81 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. A few, small, nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.63 cm at cranial pole) (0.78 cm at caudal pole) (2.19 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 (1.26 cm at cranial pole) (0.82 cm at caudal pole) (2.55 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.

Spleen

The **spleen** is subjectively normal in size (0.86 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is of appropriate echogenicity and echotexture. Several hyperechoic nodules/areas are observed throughout the organ. In addition, an approximately 1.34 cm isoechoic to slightly hypoechoic nodule is observed at the caudomedial aspect. The lesion causes slight capsular expansion. Splenic vasculature appears normal with no evidence of thrombosis. Just medial to the spleen, an area of extra splenic tissue is visualized. Within the parenchyma of this tissue, at least one, small, ill-defined, hyperechoic nodule is seen.

Liver

The **liver** is subjectively enlarged with normal curvilinear peripheral contours. The parenchyma is hyperechoic relative to the spleen. Two to three small, cystic lesions are observed throughout the organ. The remaining parenchyma is homogenous. Hepatic vasculature and intrahepatic 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 moderately distended. The wall is thin and smooth. A moderate to large amount of aggregated, echogenic, suspended sludge in a partially stellate pattern is observed. The cystic and common bile ducts are normal/not seen.



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Gastrointestinal

The **gastric lumen** is 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 segmentally dilated with chyme. 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. The colonic lumen contains shadowing fecal material. There is no evidence of an obstructive pattern.

Pancreas

The right limb of the **pancreas** is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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.

Free Abdomen

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The gall bladder changes are consistent with a developing mucocele. Changes are similar to the previous sonogram. Change recommendations to this:
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. Correlation with the patient's liver values is recommended.
- The hypoechoic splenic nodule is a new finding and could be consistent with a benign process (i.e., focus of lymphoid hyperplasia, extramedullary hematopoiesis, or similar). Alternatively, emerging neoplasia is possible.

Secondary Findings

- The bilateral adrenomegaly is consistent with the previous diagnosis of pituitary-dependent hyperadrenocorticism.
- Age-related pancreatic remodeling +/- fibrosis. Mild, chronic pancreatitis is also possible, particularly if the patient has a clinical history consistent with this disease.
- Bilateral, chronic age-related renal changes with dystrophic mineralization and right nonobstructive nephrolithiasis.
- Extra splenic tissue, likely incidental and previously observed

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Continued ursodiol therapy is recommended, with serial sonographic monitoring (i.e., every 6-8 weeks) of the gall bladder to assess for progression to a fully formed mucocele. The client should be warned that gall bladder mucoceles can rupture, resulting in bile/septic peritonitis.



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Regarding the splenic nodule, it unfortunately, is not in an accessible area for aspiration. Therefore, considerations include serial sonographic monitoring (i.e., every 6-8 weeks) to assess for growth. Alternatively, a splenectomy with submission of the spleen for histopathology

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Given the patient's age of an elevated ALP, serial monitoring (i.e., every 3-4 months) of the liver enzymes is recommended to assess for an increase in values.

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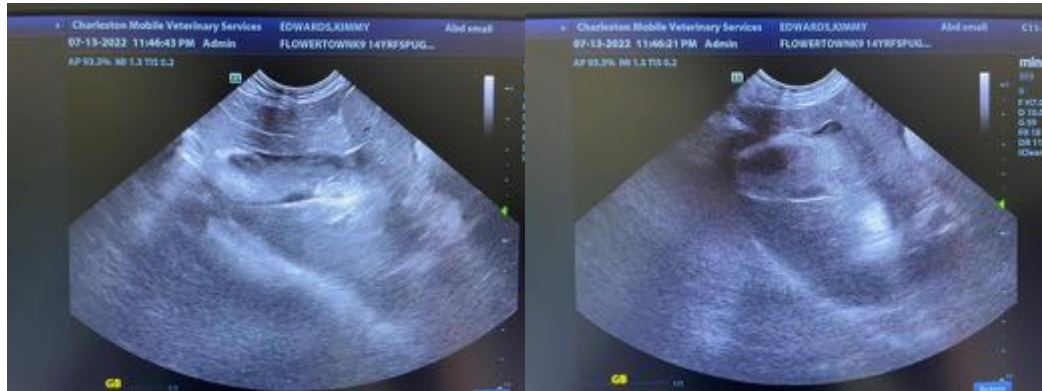


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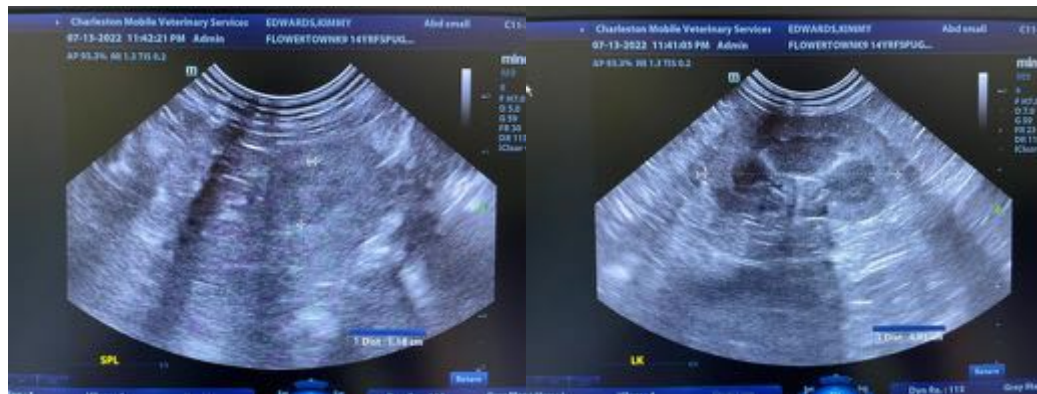
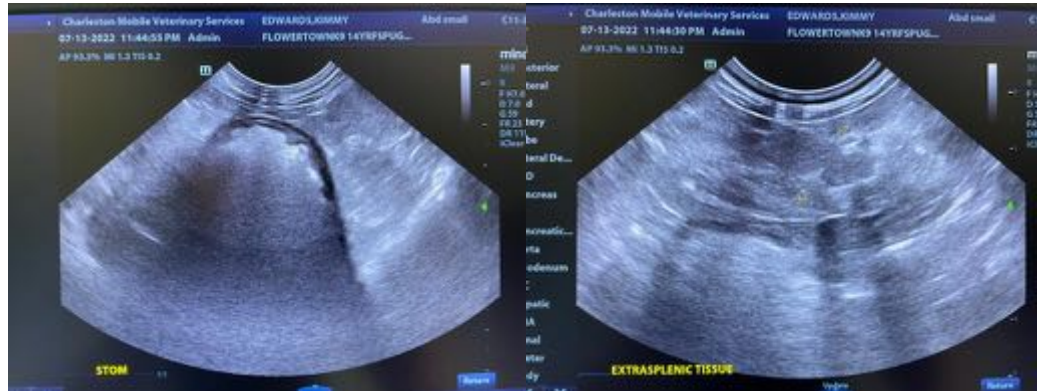
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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