



## PATIENT

Champ Barbato

## SPECIES

Canine

## BREED

Pug

## SEX

Neutered male

## AGE

13 years

## WEIGHT

34.6 lbs

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Amanda Olsen VMD

## HOSPITAL NAME

Limestone VH

## REFERRING VET

Amanda Olsen, VMD

## INVOICE

74079

## DATE

4/2/26

## PRESENTING CLINICAL SIGNS

- Patient presented 3/27/26 for a geriatric exam. Owners note that patient experiencing decreased mobility. In addition, he has had an increased appetite, PU/PD, and lethargic x 3 weeks.
- On exam, he has decreased muscle mass and ROM in the hind legs as well delayed CP's in the hind. His exam was otherwise unremarkable. No anal sac tumors noted on rectal.
- BW showed mildly elevated liver enzymes: r/o benign old age changes, Cushings (would expect higher ALP but in light of polydipsia this is a possibility), other hepatopathy. Hypercalcemia: r/o true elevation of ionized Ca (idiopathic, hyperPTH, neoplasia) but strong concern that this could be leading to increased thirst. iCa/PTH/PTH-rp pending.
- ALT 236, ALP 215, Ca 12.7, T4 <0.5, FREET4 normal at 8.5, PLT 496 with increased estimate, USG 1.009, pH 7.5, quiet sediment.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is normally distended. The bladder wall is thin, smooth, and regular. The luminal contents are anechoic. Normal appearance of the bladder neck and proximal urethra. No evidence of urolithiasis or inflammatory or proliferative changes is identified.

The left kidney is normal in shape and size, measuring 5.11×3.16 cm in the sagittal plane. Cortical thickness is 0.51 cm. The right kidney is normal in shape and size, measuring 5.30×2.96 cm in the sagittal plane. Cortical thickness is 0.57 cm. Both kidneys show cortical echogenicity within normal limits (isoechoic relative to hepatic parenchyma). The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

### *Prostate*

Small and hypoechoic, consistent with post-castration atrophy.

### *Adrenal Glands*

Dorsoventral diameters measured in the sagittal plane: the left adrenal gland measures 0.44 cm at the cranial pole and 0.57 cm at the caudal pole. The right adrenal gland is not confidently visualized. The left adrenal gland is within normal size limits (generally <0.7 cm).

### *Spleen*

Splenic thickness is 1.22 cm. Multiple small hyperechoic nodules consistent with myelolipomas are present. Additionally, there is a well-defined, homogeneous hypoechoic lesion measuring 1.03×1.42 cm. The splenic capsule is smooth and regular.



## PATIENT

Champ Barbato

## SPECIES

Canine

## BREED

Pug

## SEX

Neutered male

## AGE

13 years

## WEIGHT

34.6 lbs

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Amanda Olsen VMD

## HOSPITAL NAME

Limestone VH

## REFERRING VET

Amanda Olsen, VMD

## INVOICE

74079

## DATE

4/2/26

## Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder is normally distended. The wall shows changes consistent with mucosal hyperplasia (likely mucinous gland hyperplasia). The lumen contains a moderate amount of biliary sludge. No dilation of the cystic duct or common bile duct is observed.

## Gastrointestinal

The stomach is empty and folded, containing gas and a small amount of fluid. Wall thickness is 2.31 mm with preserved layering.

The pylorus measures 6.85 mm. Duodenum: 3.58 mm, mildly fluid-filled and slightly distended. Jejunum: up to 5.0 mm, with preserved wall layering. No focal mass, obstruction, or loss of layering is identified.

Colon: 1.28–1.57 mm, containing small amounts of fecal material.

## Pancreas

The evaluated pancreatic areas do not show evidence of overt inflammation or neoplastic disease.

## Free Abdomen

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation appears normal.

## PRIMARY FINDINGS

- Focal hypoechoic splenic lesion (1.03×1.42 cm)

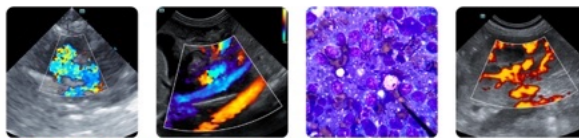
## SECONDARY FINDINGS

- Multiple splenic myelolipomas.
- Gallbladder mucosal hyperplasia with moderate sludge.
- Mild small intestinal fluid distension.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This study demonstrates several mild to moderate abnormalities, but none that definitively explain the patient's hypercalcemia and PU/PD, which remain the primary clinical concerns.

The most notable finding is a focal splenic lesion (1.03×1.42 cm) in addition to multiple small myelolipomas. While the smaller hyperechoic nodules are consistent with benign age-related change, the hypoechoic lesion is nonspecific. In isolation, this could represent benign nodular hyperplasia;



## PATIENT

Champ Barbato

## SPECIES

Canine

## BREED

Pug

## SEX

Neutered male

## AGE

13 years

## WEIGHT

34.6 lbs

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Amanda Olsen VMD

## HOSPITAL NAME

Limestone VH

## REFERRING VET

Amanda Olsen, VMD

## INVOICE

74079

## DATE

4/2/26

however, in the context of hypercalcemia, a neoplastic process cannot be excluded, and this finding warrants further consideration.

The left adrenal gland is within normal size limits. The right adrenal gland was not confidently visualized, which represents a common technical limitation, particularly in this location. In the absence of indirect signs such as mass effect, asymmetry, or other abdominal abnormalities, there is no ultrasonographic evidence to support adrenal enlargement or adrenal-dependent disease. However, incomplete visualization should be considered when interpreting these findings.

The gallbladder shows mucinous hyperplasia with moderate sludge, a common incidental finding in older dogs and not sufficient to explain the clinical presentation.

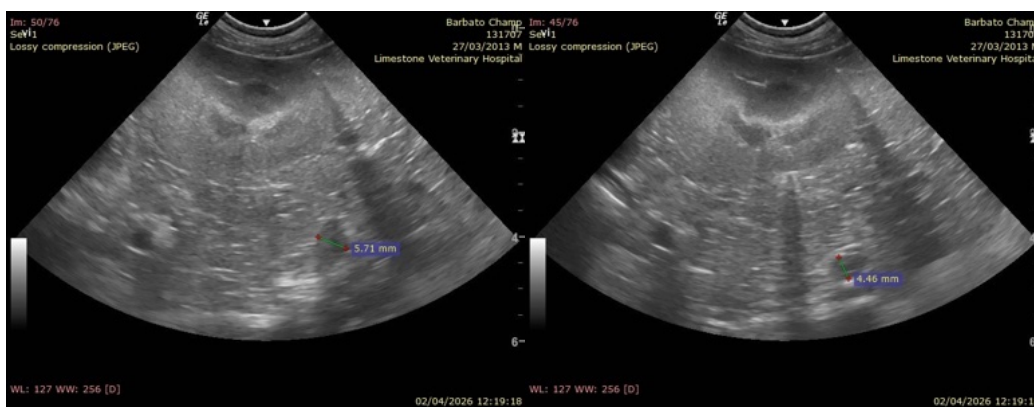
The gastrointestinal tract shows mild fluid distension, which may reflect nonspecific gastrointestinal upset but no evidence of obstructive or infiltrative disease.

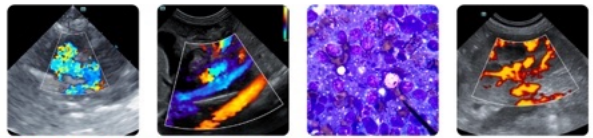
Importantly, there is no evidence of lymphadenomegaly, hepatic masses, or widespread infiltrative disease, which reduces (but does not eliminate) the likelihood of systemic neoplasia such as lymphoma.

## Recommendations

- Hypercalcemia workup to guide differentiation (parathyroid vs neoplastic vs other)
  - Await iCa, PTH, and PTH-rp results.
- Splenic lesion: Consider fine-needle aspiration for cytologic characterization.
- If hypercalcemia remains unexplained:
  - Consider thoracic imaging (if not already performed)
  - Evaluate the cervical region for possible parathyroid enlargement (ultrasound recommended)

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.





**PATIENT**

Champ Barbato

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Neutered male

**AGE**

13 years

**WEIGHT**

34.6 lbs

**INTERPRETED BY**

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

**IMAGING  
PERFORMED BY**

Amanda Olsen VMD

**HOSPITAL NAME**

Limestone VH

**REFERRING VET**

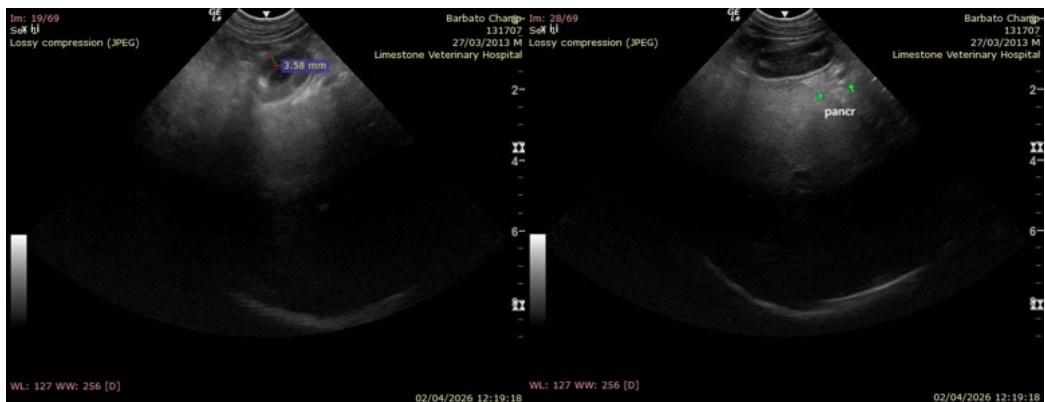
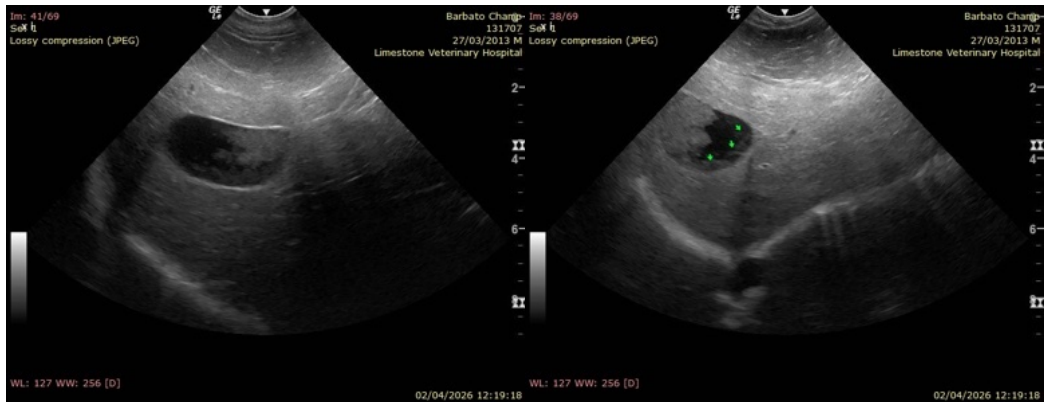
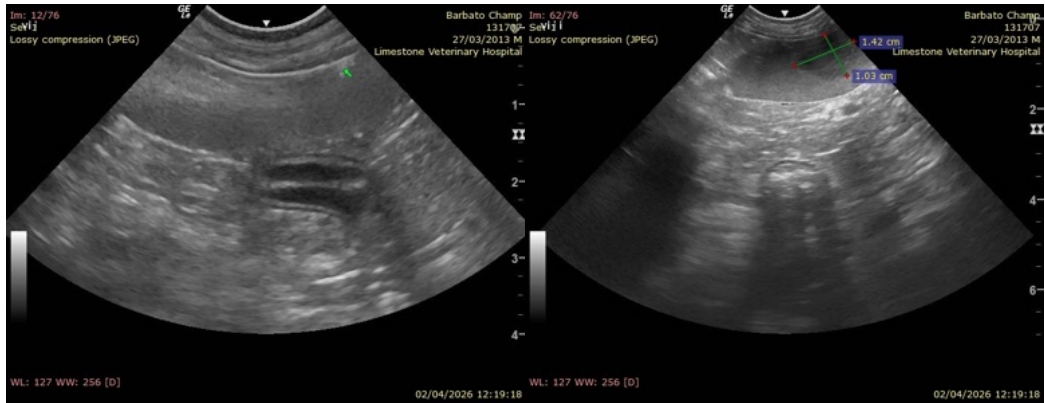
Amanda Olsen, VMD

**INVOICE**

74079

**DATE**

4/2/26



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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

[info@SonoPath.com](mailto:info@SonoPath.com)