



**PATIENT**

Knobby Footman

**SPECIES**

Canine

**BREED**

Mix

**SEX**

MN

**AGE**

15yr

**WEIGHT**

16.3lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Animal General  
Hudson

**REFERRING VET**

Dr Hodges

**INVOICE**  
24358

**DATE**  
03/30/2026

**PRESENTING CLINICAL SIGNS**

- Elev. liver enzymes and calcium
- please compare US July 2025- FNA liver = mixed inflam and hepatocellular vascular change
- Abnormal PE/Chem/CBC/UA Results: ALT-384 ap-1407 ca-12.3 ua USG-1.017 ph-7 prot-2+ phos crystals 2-3

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no evidence of urine/lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Mild left kidney pyelectasia. Bilateral areas of medullary mineral to small renoliths were present. The left kidney measured 4.7 cm in length. The right kidney measured 4.5 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The left adrenal gland was mildly enlarged at the caudal pole in light of body weight with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.66 cm width at the caudal pole. The right adrenal gland was not definitively visualized, no overt pathology in the area of the right adrenal gland.

**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 was subjectively mildly enlarged in size. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. An indistinctly marginated isoechoic to non-homogenous liver mass occupying the mid to left liver was present measuring ~ 5-6 cm in diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.



**PATIENT**

***Gastrointestinal***

Knobby Footman

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

**SPECIES**

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of mechanical/metabolic ileus, obstruction or foreign material.

Canine

Normal visible colon wall layers were present with apparent formed feces in lumen.

**BREED**

***Pancreas***

Mix

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**SEX**

***Free Abdomen***

MN

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**AGE**

**ULTRASONOGRAPHIC FINDINGS**

15yr

**Primary**

**WEIGHT**

- Chronic hepatopathy with mildly progressive intraparenchymal mass
- Normal gallbladder
- Static chronic renal changes with medullary mineral / renoliths
- Mild left adrenomegaly -subjective benign

16.3lb

**INTERPRETED BY**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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

The previously noted hepatic macronodule to small mass appears progressive with current indistinctly marginated non-homogenous liver mass. Benign etiologies in conjunction with previous FNA cytology possible, although concern for neoplastic criteria, i.e. carcinoma warranted given hypercalcemia. Recheck FNA cytology of the hepatic parenchyma and mass warranted for further assessment. Biopsies may be required for definitive diagnosis.

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No other evidence of intra-abdominal neoplastic criteria. The mild left adrenomegaly is of unclear clinical significance given lack of reported clinical signs. Adrenal screening could be considered if clinical signs consistent with Cushing syndrome are non-reported or arise.

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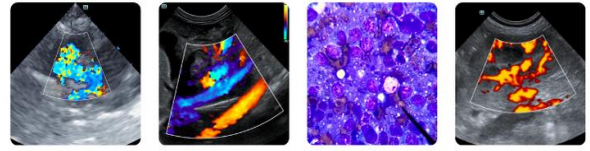
Three view chest radiographs and rectal palpation are recommended if not recently done.

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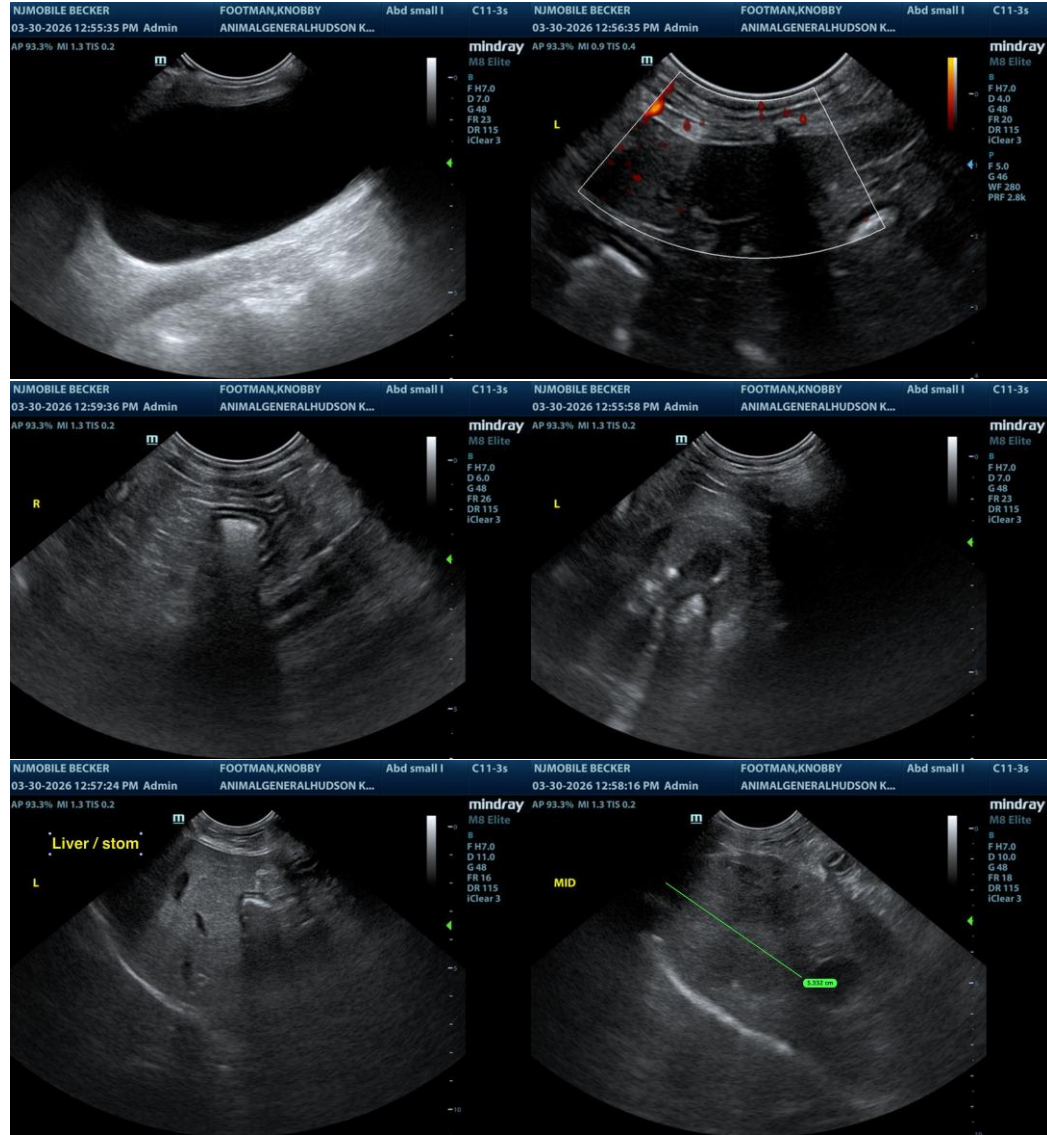
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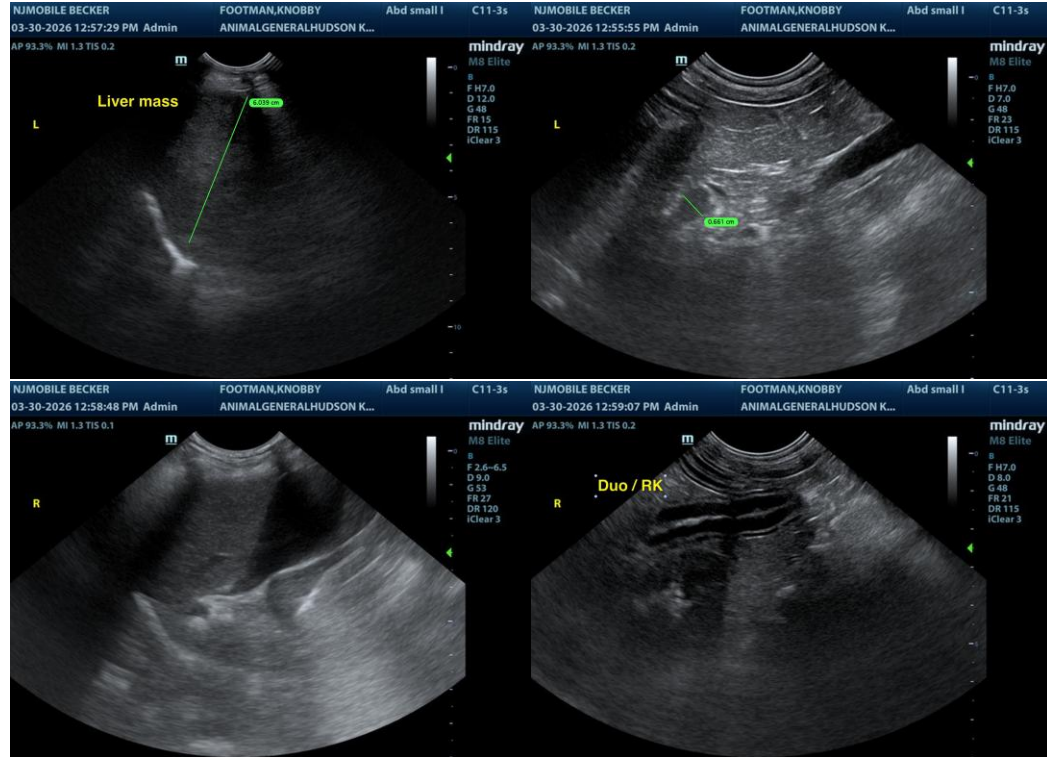
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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DVM, DABVP  
(Canine and Feline)

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.

**IMAGING PERFORMED BY**

Kerri Becker

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
[info@sonopath.com](mailto:info@sonopath.com)

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