



PATIENT PRESENTING CLINICAL SIGNS

Tyson Berner Chronic elevated liver values, recent non regenerative anemia Amino B Plex, HepatoSupport
 ALP 2269, ALT 208, GGT 9, TBili 0.1

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

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

SEX No overt pathology was noted in the area of the residual prostate.

MN The area of the aortic trifurcation was free of pathology.

AGE 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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.7 cm in length. The right kidney measured 7.5 cm in length.

WEIGHT 82

Adrenal Glands

The left adrenal gland was enlarged in size primarily in the mid to caudal left adrenal gland exhibiting nonhomogeneous to indistinctly nodular parenchyma and asymmetrical capsule contour. The left adrenal gland measured 3.2 cm length x 1.7 cm width at the caudal pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.75 cm width at the caudal pole and 0.73 cm width at the cranial pole.

INTERPRETED BY

R. McKenzie Daniel,
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 (Canine and Feline)

IMAGING PERFORMED BY

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 (ALLEN)

REFERRING VET

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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

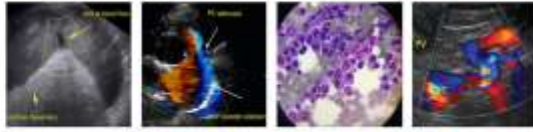
The liver exhibited generalized enlargement with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. An ill-defined to moderately expansive, nonhomogeneous to mixed echogenic, indistinctly nodular to cystic mass occupying the majority of the right mid to lateral liver with potential extension into the caudate liver lobe and area of the pancreas base was present. The mass measured 11.0-12.0 cm in diameter, but possibly mildly larger.

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A separate spherical appearing mass exhibiting hypoechoic parenchyma with potential for intra-mass areas of mineralization or possible gas, as well as central, indistinct cystic component to fluid accumulation was present ventral to the primary hepatic mass measuring 8.0 cm in diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion.

SPECIES

Canine

The gallbladder was non-distended in size containing moderate, variably echogenic to mildly congealed debris present primarily in the caudal lumen of the gallbladder neck. The cystic and common bile ducts were normal.

BREED

Gastrointestinal

Rott X

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained anechoic fluid was present in the stomach.

SEX

MN

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 ileus, obstruction, or foreign material.

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

AGE

2009

Pancreas

The pancreas base and right pancreatic limb were normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

WEIGHT

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Free Abdomen

Associated regional perihepatic hyperechoic mesentery with intermittent scant pocket of free fluid were present. No overt lymphadenopathy was noted.

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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hepatomegaly exhibiting ill-defined to expansive nonhomogeneous to indistinctly nodular mass to masses in area of right, mid to lateral liver, associated regional perihepatic peritonitis
- Moderate congealed to variably echogenic gallbladder debris (non-mucocele)
- Mild chronic renal changes
- Irregular to nodular left adrenal gland
- Subjective heterogeneous pancreas base and right pancreatic limb

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although sampling is required for further clarification, the hepatic mass to masses is consistent with probable neoplastic criteria with potential associated areas of necrosis or possible abscess. The irregular to nodular left adrenal gland may indicate adenomatous change, hyperplasia, while the possibility of concurrent primary or metastatic neoplasia is of concern. Potential extension of the hepatic mass into the area of the pancreas base cannot be definitively excluded.

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Assuming normal clotting status, ultrasound guided FNA of the hepatic mass to masses for cytology, +/- C/S if clinically indicated is recommended. Subjectively, the hepatic mass is not likely amenable to complete surgical resection, given its location in the area of the porta hepatis and likely involvement of more than one liver lobe. Screening blood pressure is recommended to assess for evidence of hypertension associated with the irregular to nodular left adrenal gland.

SPECIES

Canine

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Rott X

SEX

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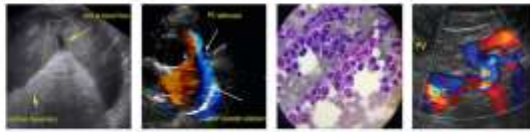
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SPECIES

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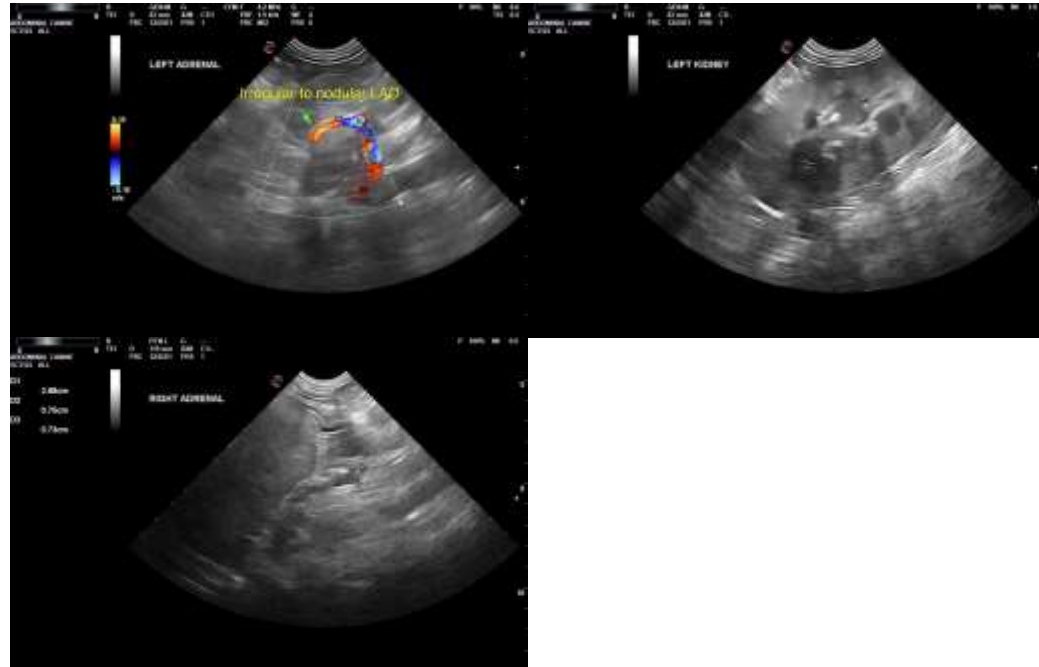
Rott X

SEX

MN

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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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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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