



PATIENT PRESENTING CLINICAL SIGNS

Biscuit Evans

No sedation-Chief Concern/Provisional Diagnosis: Elevated liver enzymes. P has historical seizures(chronic), well controlled on Keppra, Zonisamide. P is currently taking 1.8mg prednisolone PO bid x 1 year for lymphoplasmacytic, eosinophilic rhinitis (dx vs CT and nasal biopsies). Suspect elevated liver values are due in part to chronic prednisolone usage but want to ensure that P also does not have underlying liver disease. Bile acids not performed today as P accidentally was fed a small treat.

SPECIES

Canine

BREED

Toy Poodle

Abnormal PE/Chem/CBC/UA Results: 12/15/22 cbc - wbc 20,400, hgb 21.9, hct 63, neut 15,912, monocytes 1428 chem - AST 88, ALT 424, ALP 2153, GGT 513, BUN 32, phosphorus 6.2, cholesterol 822, triglyceride 368, precision psl 233 T4<0.5 UPC 3.2

SEX

Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

9 Years

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

WEIGHT

9 Pounds

The prostate is normal in size (0.65 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

The left kidney has a normal shape and size (3.83 cm) with small cortical mineralizations measuring 0.25 cm and 0.33 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

The right kidney has a normal shape and size (3.84 cm) with small non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Desert Hills AH

Adrenal Glands

The left adrenal gland is normal in size measuring 0.44 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Michelle Caldwell

The right adrenal gland is normal in size measuring 0.44 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

INVOICE

43604

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are numerous linear hyperechoic echogenicities visualized throughout the parenchyma, possibly consistent with mild mineralization.

DATE

12/20/22



PATIENT *Liver*

Biscuit Evans

The liver is large and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. The liver is very heterogeneous and mottled with some ill-defined hypoechoic regions. One such area measures at 2.0 cm in diameter.

SPECIES

Canine

BREED

Toy Poodle

The gallbladder lumen is significantly distended with a relatively small amount of hyperechoic/echogenic debris. This debris appears adhered to the gallbladder wall, and in some area appears to be in the very early stages of trying to organize. No overt wall thickening or inflammation is observed.

SEX

Gastrointestinal

Neutered Male

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

AGE

9 Years

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.30 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

WEIGHT

9 Pounds

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

HOSPITAL NAME

Desert Hills AH

ULTRASONOGRAPHIC FINDINGS

REFERRING VET

Dr. Michelle Caldwell

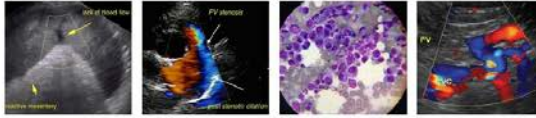
- Hyperechoic linear structures visualized in the splenic parenchyma – The appearance of these nodules trends towards a benign etiology such as mild mineralization, fatty deposition, etc. Recommend continued monitoring.
- Small non-obstructive nephroliths visualized in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.
- Large, irregular, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

INVOICE

43604

DATE

12/20/22



PATIENT

Biscuit Evans

SPECIES

Canine

BREED

Toy Poodle

SEX

Neutered Male

AGE

9 Years

WEIGHT

9 Pounds

- Moderate amount of gallbladder debris with early organization, adhered to the gallbladder wall – A large amount of debris is evident in the gall bladder with no evidence of a mucocele or associated inflammation at this time. This could represent an early mucocele or cholestasis, with minimal evidence of associated inflammation at this time. Continued monitoring of lab work and ultrasound are warranted for progression of this lesion. Ursodiol therapy could be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large and irregular with some ill-defined hypoechoic regions, the appearance of which trends towards a benign etiology, but underlying pathology cannot be ruled out. Your plan for a liver function test is an excellent one. You could also consider a fine needle aspirate of the liver, provided coagulation parameters are normal. It can be difficult to ascertain the nature of the liver enzyme elevation while on steroids, additionally Zonisamide use has been associated with a hepatopathy (typically an ALT elevation). You could consider the option of inhaled steroids for the nasal cavity, as this may have less of a systemic effect and could theoretically target the nasal tissue more appropriately. If liver function is abnormal or liver enzymes continued to rise despite not change in medications, then a liver biopsy would be more appropriate.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Desert Hills AH

REFERRING VET

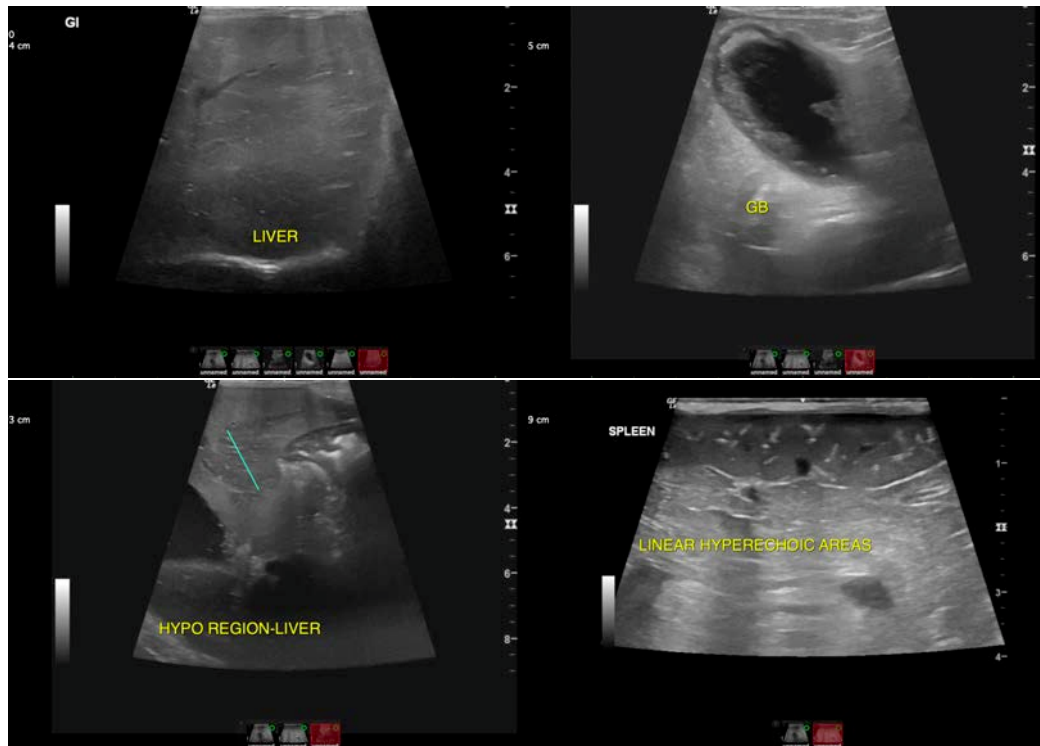
Dr. Michelle Caldwell

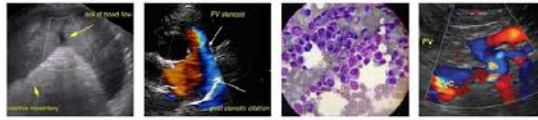
INVOICE

43604

DATE

12/20/22





PATIENT

Biscuit Evans

SPECIES

Canine

BREED

Toy Poodle

SEX

Neutered Male

AGE

9 Years

WEIGHT

9 Pounds

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Desert Hills AH

REFERRING VET

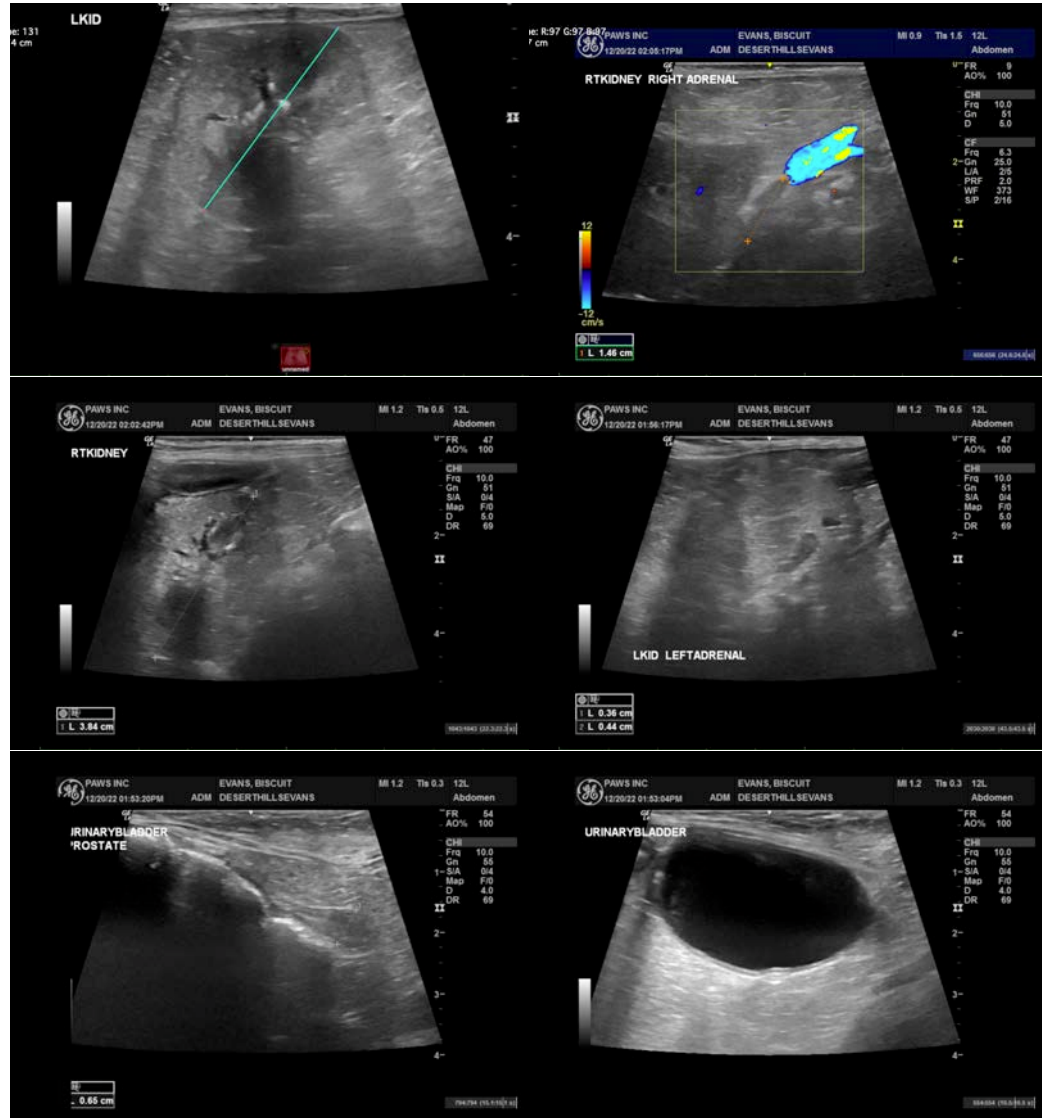
Dr. Michelle Caldwell

INVOICE

43604

DATE

12/20/22



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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

kathleen.sennello@sonopath.com