



PATIENT

Pickachu Anhorn

SPECIES

Canine

BREED

Pomeranian

SEX

Male Neuter

AGE

12

WEIGHT

3 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Healing Traditions
AH

REFERRING VET

Dr. Balac

INVOICE

13947

DATE

5/25/22

PRESENTING CLINICAL SIGNS

Diabetic on insulin, history of liver and kidney disease as well as heart disease and collapsing trachea. Patient is losing weight anorexic, muscle wasting and lethargic. On pimobendane zentonyl and insulin.

Abnormal PE/Chem/CBC/UA Results: Mod to severe elevation of kidney enzymes and mild elevation liver enzymes

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was mildly subnormal in size with normal tone. Anechoic urine was present with no overt sediment or calculi. Mildly prominent yet homogeneous urinary bladder wall layering without evidence of mural mineralization or neoplastic criteria was noted. The ventral urinary bladder wall width measured 0.40 cm. The urethra was normal in structure and tone to a depth of 3.0 cm.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.59 cm in diameter.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. Mild, nonuniform increased cortex echogenicity was present with moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Pinpoint to focal areas of corticomedullary mineral were noted. No evidence of pyelectasia was present. The left kidney measured 3.4 cm in length. The right kidney measured 3.6 cm in length.

Adrenal Glands

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.40 cm width in the cranial pole and 0.42 cm width in the caudal pole. The right adrenal gland measured 0.38 cm width in the cranial pole and 0.37 cm width in the caudal pole. No evidence of adrenal hyperplasia or neoplastic criteria was noted.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present. A solitary, hyperechoic, nondisruptive nodule consistent with benign myelolipoma was present, measuring 0.38 cm diameter. 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 normal in size, 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. The hepatic and portal vasculature were normal in appearance without



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| PATIENT | signs of congestion. The gallbladder was non-distended in size with sonographically normal walls and primarily anechoic content with mild areas of congealed nonmineralized sludge. The cystic and common bile ducts were normal. |
| Pickachu Anhorn | |
| SPECIES | Gastrointestinal |
| Canine | The stomach presented intact wall layering with a normal wall layer ratio. Minor retained nonshadowing ingesta / chyme was present in the stomach. |
| BREED | |
| Pomeranian | The small intestine presented intact wall layering with subjective propensity for mildly prominent segmental to generalized mucosa layer. The duodenum wall width measured 0.44 cm. The jejunum wall width measured 0.33 cm. |
| SEX | |
| Male Neuter | Normal visible colon wall layers were present with apparent formed feces in lumen. |
| AGE | Pancreas |
| 12 | The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. |
| WEIGHT | Free Abdomen |
| 3 kg | No overt lymphadenopathy or peritoneal effusion was present. |
| INTERPRETED BY | ULTRASONOGRAPHIC FINDINGS |
| R. McKenzie Daniel, DVM, DABVP (Canine and Feline) | <ul style="list-style-type: none"> • Chronic hepatopathy exhibited parenchymal remodeling - metabolic / reactive / vacuolar (diabetic) hepatopathy, inflammatory hepatopathy i.e., cholangitis / cholangiohepatitis, early fibrosis, subtle areas of nodular hyperplasia, hematopoiesis likely, no overt evidence of hepatic neoplastic criteria • Mild congealed gallbladder sludge (non-mucocele) • Chronic renal changes with pinpoint to focal corticomedullary mineral • Heterogeneous pancreas - age-related / patient variant, remodeling owing to previous inflammation or low-grade to chronic pancreatitis possible, no evidence of pancreatic neoplastic criteria • Intact yet mildly prominent small bowel wall layering - potential for inflammatory bowel • Possible mild cystitis |
| IMAGING PERFORMED BY | INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS |
| Dr. Belan | The small intestine exhibited mild subjective prominent yet intact wall layering which may be a normal patient variant with potential for inflammatory enteropathy i.e., IBD, given the patient's weight loss. However, without reported gastrointestinal signs, this finding is nonspecific. Correlation with a GI panel to include PLI/TLI/Cobalamin/Folate could be considered. |
| HOSPITAL NAME | |
| Healing Traditions AH | |
| REFERRING VET | |
| Dr. Balac | Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. |
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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com

For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>