



**PATIENT**

Tucker Blower

**SPECIES**

Canine

**BREED**

Morkie

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

5.8 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Singh

**HOSPITAL NAME**

Balmy Beach PH

**REFERRING VET**

Dr. Singh

**INVOICE**

15940

**DATE**

6/8/22

**PRESENTING CLINICAL SIGNS**

History: losing balance Lethargy, insidious in nature. Has proprioceptive deficits in both pelvic limbs, L>R - rads of spine were submitted to Sonopath, there is Ventral to L1, superimposed on the cranial pole of one kidney – suspect the right kidney – a granular mineral opacity is seen, measuring approximately 8 x 3 mm in size. RADIOGRAPHIC DIAGNOSIS • Possible discopathy T12/T13 • Dystrophic mineralization ventral to L1 Bloodwork showed marked elevations in ALKP, initially ALT was normal. Also had pancreatitis. REcheck labs showed marked elevation in ALP and mild elevation in ALT. Ultrasound shows hypoechoic nodules in the liver. Not sure how to relate the changes in the spinal cord, pancreatitis, and now liver nodules. Not sure if there may be lymphoma? or some other metastatic process? Results of pre and post prandial bile acids are pending. Looking for assistance on how to best manage this patient in the most economically feasible way. Owners are running tight on funds. Not sure if they want to go for MRI/CT scan due to costs. FNA of liver nodules?

Abnormal PE/Chem/CBC/UA Results: elevation in spec cPL Elevation in liver enzymes

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right and left kidney measured 4.0 cm, each.

**Adrenal Glands**

The **adrenal glands** were not visualized.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted. Caudal folding of the spleen was noted.

**Liver**

The **liver** was swollen and heterogeneous with hypoechoic nondisruptive nodular changes. The gallbladder and common bile duct were unremarkable. A minor amount of debris was noted in the gallbladder.

**Gastrointestinal**



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The gastrointestinal tract presented considerable gastric artifact due to the presence of ingesta. This did not permit thorough evaluation of portions of the gastric and upper intestinal structure. No overt abnormality was seen in the visualized tissue, however. This is consistent with a post-prandial presentation within a few hours of mealtime. If the prandial temporal interval does not fit the case history, and the patient presents a history of post-prandial vomiting, this could indicate a delayed upper gastrointestinal outflow due to primary or secondary pyloric hypertrophy, upper GI infiltrative disease, motor deficits, or a non-visualized foreign body. A prudent approach would be to rescan this patient at 24 hour NPO status to further review the non-visible regions if stomach primarily as well as assess any delayed outflow issue.

***Pancreas***

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**ULTRASONOGRAPHIC FINDINGS**

- Subjectively benign hepatopathy with nodular changes
- Gallbladder debris, minor
- Folded spleen
- Age-related renal changes
- Full stomach

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of overt pathology. FNA of the liver could be considered for further definition, however, subjectively appears benign.

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The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

**IMAGING PERFORMED BY**

Dr. Singh

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