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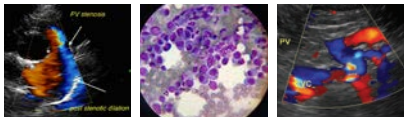

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Clinical Sonography & Telecytology
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**DATE**

10/21/21

**PATIENT**

David Spencer

**SPECIES**

Canine

**BREED**

Miniature Schnauzer

**SEX**

Neutered Male

**AGE**

2/19/11

**WEIGHT**

23 Pounds

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**HOSPITAL NAME**

Perry Hall AH

**REFERRING VET**

Dr. Baer

**INVOICE**

26577

## PRESENTING CLINICAL SIGNS

Patient has been having yellow colored stool for the past 3-5 days, has been chronically receiving Phenobarbital and Zonisamide for history of epilepsy. Recent lethargy, presented for pre-dental blood work screening which showed hypoproteinemia and mild elevation alkp. PE: unremarkable, grade 4 dental disease. Bile acids to be tested as well at drop-off for scan.

Current Medications: 03/21-07/21 Phenobarbital 30mg PO BID, 07/21-current Phenobarbital 15mg PO BID. 03/21-current Zonisamide 100mg 1 PO BID.
Lab Results: 10/20/21- TP (L) 5.1; Alb (L) 2.2; ALKP (H) 301, T4 < 0.5
Radiographs: Not provided by the veterinarian.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

Urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Right kidney is normal in size (5.06 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Left kidney is normal in size (5.21 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

### *Adrenal Glands*

Left adrenal gland is normal in size (1.62 cm long x 0.52 cm at cranial pole and 0.49 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (2.33 cm long x 0.55 cm at cranial pole and 0.49 cm at caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

### *Spleen*

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

### *Liver*

Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

### *Gastrointestinal*

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Normal wall layering is preserved, but the mucosa is more echogenic than normal and contains hyperechoic speckling. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### *Pancreas*

Pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### *Free Abdomen*

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

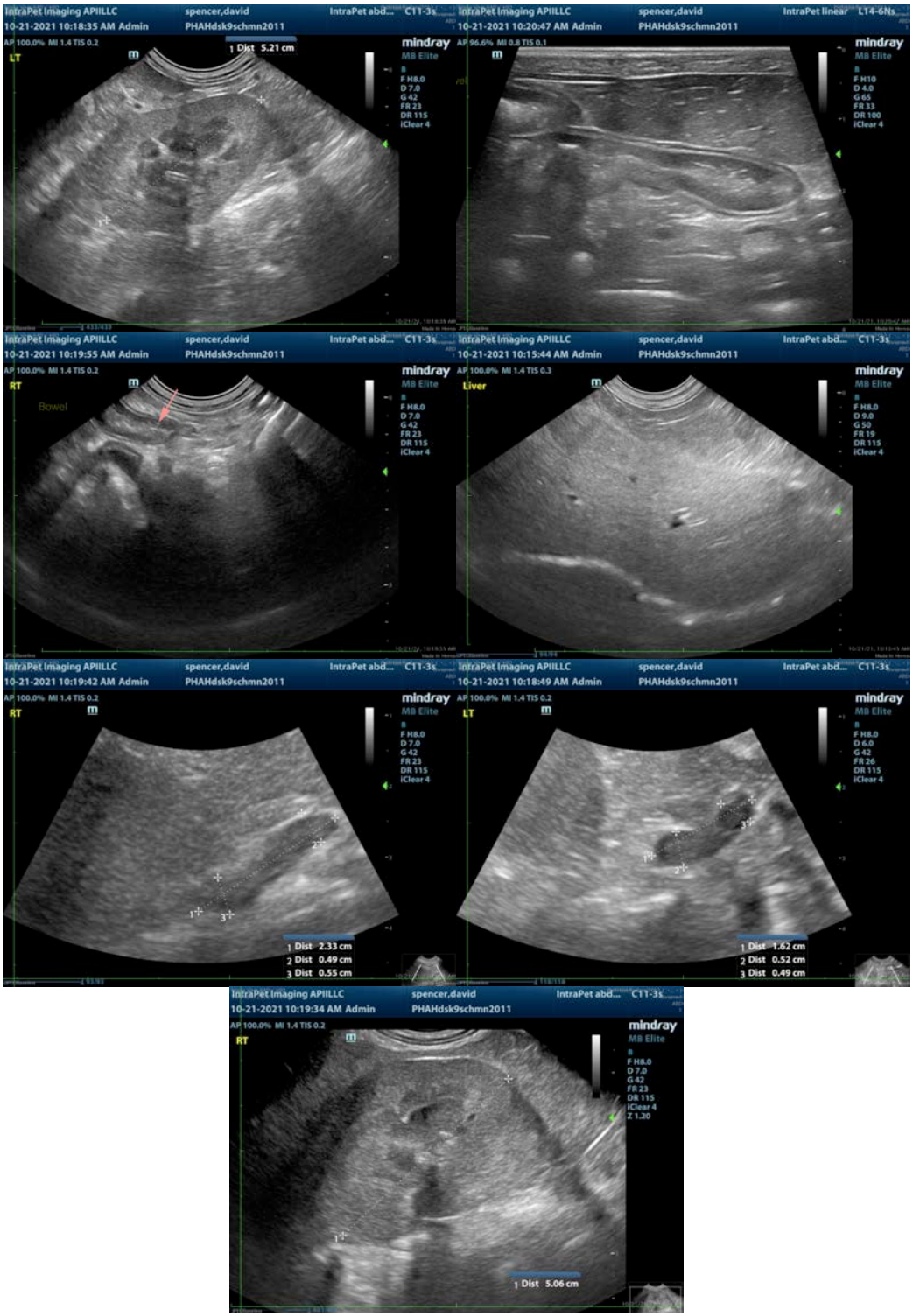
## ULTRASONOGRAPHIC FINDINGS

- Hyperechoic hepatomegaly canine – most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.

- Mildly hyperechoic, speckled small bowel mucosa – can be observed with protein losing enteropathies caused by either primary lymphangiectasia or primary infiltrative inflammatory with secondary lymphangiectasia. Infiltrative neoplasia is possible, but considered much less likely. Histopathology is necessary to definitively determine the underlying cause.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's history, hypoalbuminemia and ultrasound, recommendations include bile acids that are reportedly already being performed. If bile acids are abnormal, and even if they are normal but there is continued concern for increased liver enzymes and/or liver disease, a transition from Phenobarb to Keppra could be considered. Other recommendations given the mucosal speckling include a gastrointestinal malabsorption panel with TLI, PLI, folate and cobalamin to Texas A&M GI laboratory. Empirical therapies while waiting for results could include a low-fat diet and cobalamin supplementation.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1 Dist 5.06 cm

**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.

**Beth Johnson**, DVM, DACVIM
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