

**DATE PRESENTING CLINICAL SIGNS**

3/28/23

Patient presents for second opinion evaluation - patient has not eaten in 3 days. Overall PE is stable, significant potbelly appearance and panting but no other obvious abnormalities noted with the exception of significant dental disease. Lab work at rDVM did show some mild liver enzyme elevation.

**PATIENT**

Natasha Polanco

Current Medications: rDVM has given several injection of cerenia

Lab Results: Labwork at rDVM- CBC: Neutrophils: 10,664 (2060 - 10,600). Chemistry: ALT: 161 (12 - 118), ALP: 169 (5 - 131), AST: 110 (15 - 66)

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

Havanese X

Imaging Performed By: Andi Parkinson, BS, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Spayed Female

**Urinary System**

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.46 cm). Mucosa is hyperechoic and irregular. No masses or calculi are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

**AGE**

9/25/09

The right kidney is normal in size (4.87 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.

**WEIGHT**

16 Pounds

The left kidney is normal in size (4.58 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.

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**Adrenal Glands**

The right adrenal gland is normal in size (1.55 cm long x 0.30 cm at the cranial pole and 0.53 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**HOSPITAL NAME**

Perry Hall AH

The left adrenal gland is normal in size (1.74 cm long x 0.49 cm at the cranial pole and 0.57 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**REFERRING VET**

Dr. Miller

**Spleen**

The 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.

**INVOICE**

46230

**Liver**

Liver is subjectively enlarged with a swollen but moderately undulating/scalloped capsular contour/margin. 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 and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The 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 and layering. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen is empty with no evidence of obstruction or foreign material.

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

### ***Pancreas***

The 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 a moderate amount of free fluid noted in these images, some of which appears echogenic in appearance.

There is no apparent lymphadenopathy noted in these images.

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

## **PRIMARY FINDINGS**

- The diffuse liver changes are non-specific and can be seen with a benign steroid or endocrine or vacuolar hepatopathy, or reactive or idiopathic hepatopathy. Given the scalloped undulating margins however, a chronic inflammatory hepatopathy and potentially even early or emerging fibrosis could be contributing. Additionally, infiltrative disease such as round cell neoplasia is possible and cannot be ruled out without tissue sampling.
- **Mucosal speckling** – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.
- **Free fluid** – Some of which appears echogenic in appearance.

## **SECONDARY FINDINGS**

- **Chronic Cystitis** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

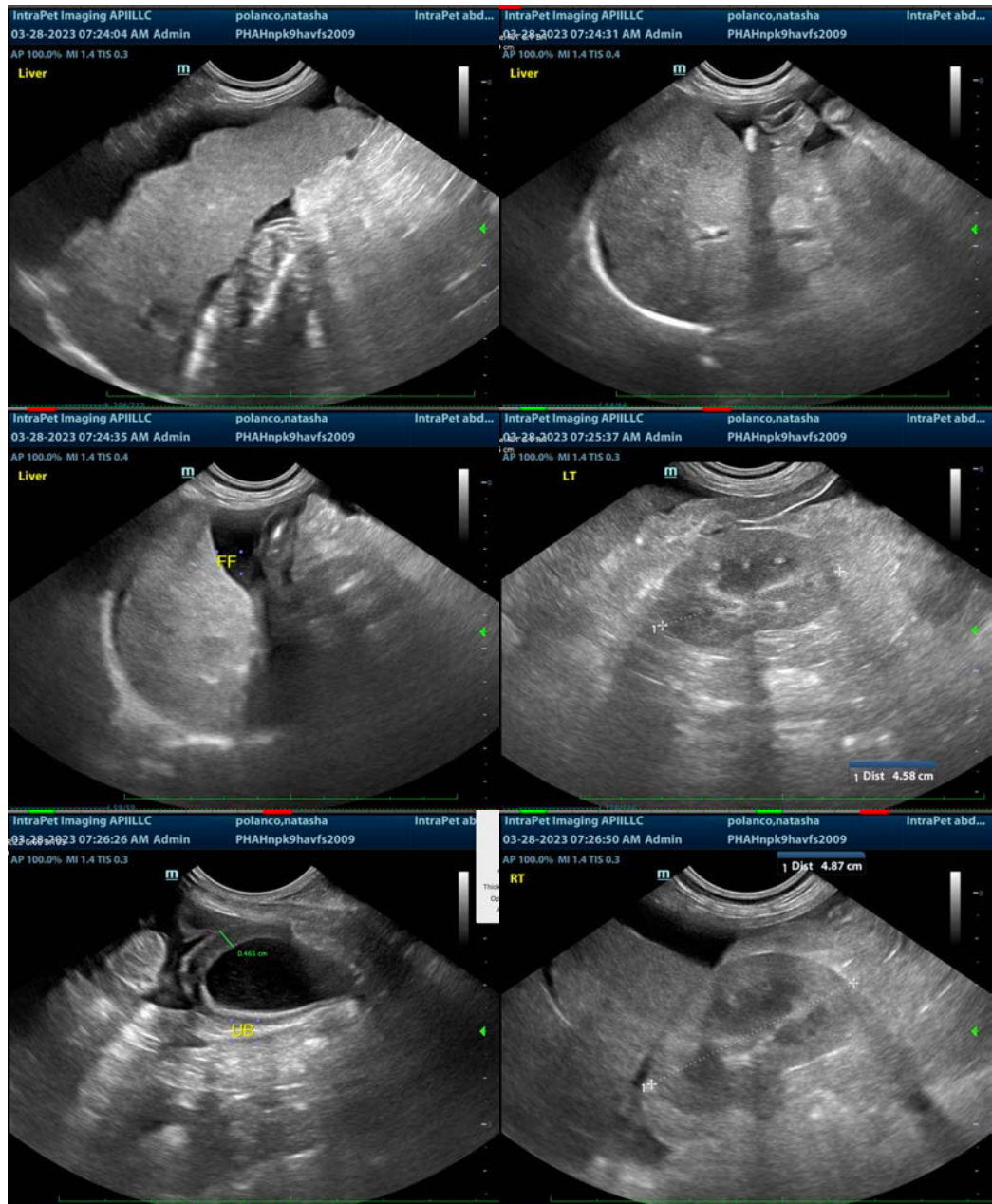
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the free fluid, first recommendation is sampling of the fluid for cytology as well as culture and sensitivity, etc. if indicated based on cytology results.

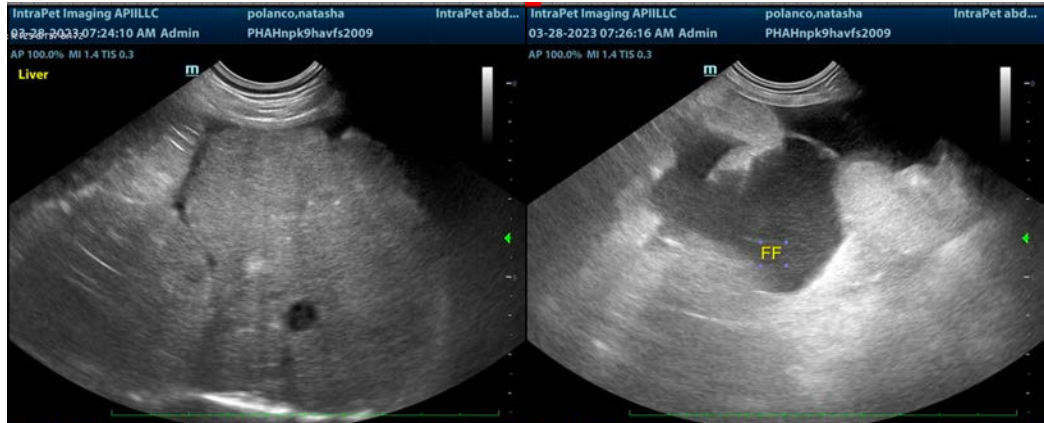
Given patient breed and liver changes, etc., bile acids are also recommended, potentially followed by liver sampling in the form of a fine needle aspirate if patient's coagulation status is appropriate.

Given the mucosal speckling, further evaluation of possible maldigestive/malabsorptive conditions is recommended, beginning with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.

Thoracic radiographs and a full echocardiogram should also be considered, pending fluid analysis results.







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.

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