

**DATE PRESENTING CLINICAL SIGNS**

12/20/22 Fecal impaction, diarrhea, anorexia 48hr.

PATIENT

Emme Hensley
 Current Medications: Entyce, diigel
 Lab Results: Previous mild elevated total calcium, today normal total Ca with decreased ionized calcium, otherwise BW WNL.

SPECIES

Canine

Radiographs: Mild gas distention of stomach with material vs mass.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Shih Tzu

SEX

Spayed Female

AGE

2/20/11

WEIGHT

18.2 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**Stephanie Warga
RDCS, RVT**HOSPITAL NAME**

Eastern AH

REFERRING VET

Dr. Sole

INVOICE

43571

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is only mildly distended (empty). Visible contents are anechoic. Urinary bladder wall is unable to be fully assessed for pathology without further distension. No visible masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. If there are urinary signs and/or concern for urinary bladder pathology, reassessment after complete filling is recommended.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of mineral or infarcts observed. The right kidney measures 4.2 cm. Mild pyelectasia noted measuring 0.23 cm in the transverse view. The left kidney measures 4.04 cm.

Adrenal Glands

The right adrenal gland is normal in size (1.77 cm long x 0.76 cm at the cranial pole and 0.55 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.95 cm long x 0.40 cm at the cranial pole and 0.46 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. 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.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is mildly distended and contains an echogenic interface with distal progressively shadowing material consistent with hairball density (or similar fluid absorbing material) noted.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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

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 no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Gastric Hairball** – similar density soft foreign material cannot be ruled out. Depending on this patient's last meal, normal ingesta/gas, etc. can't be definitively ruled out, and this finding should be interpreted in combination with clinical signs as well as meal schedule.
- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

SECONDARY FINDINGS

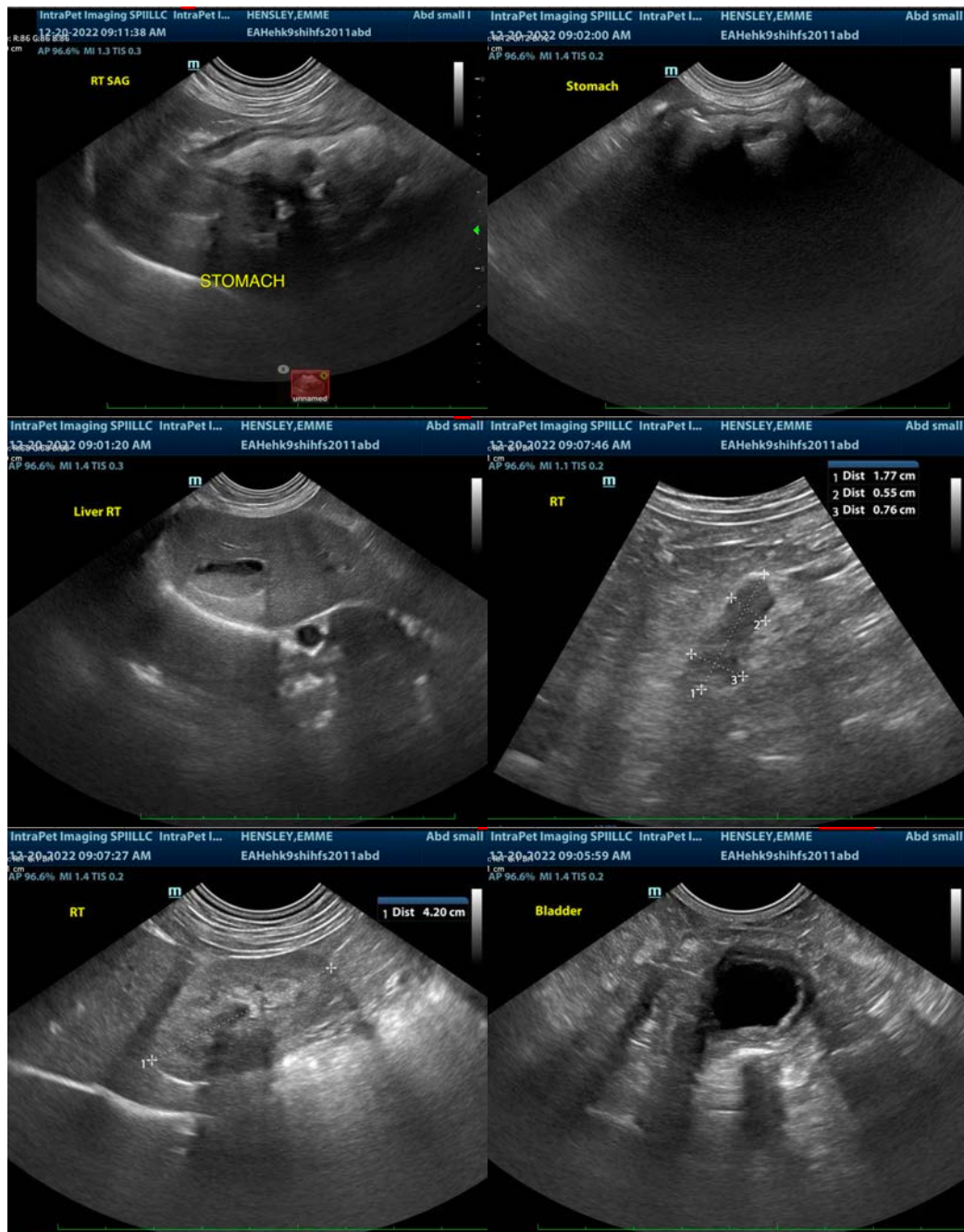
- Age related kidney changes with very mild pyelectasia in the left kidney
- **Mild gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

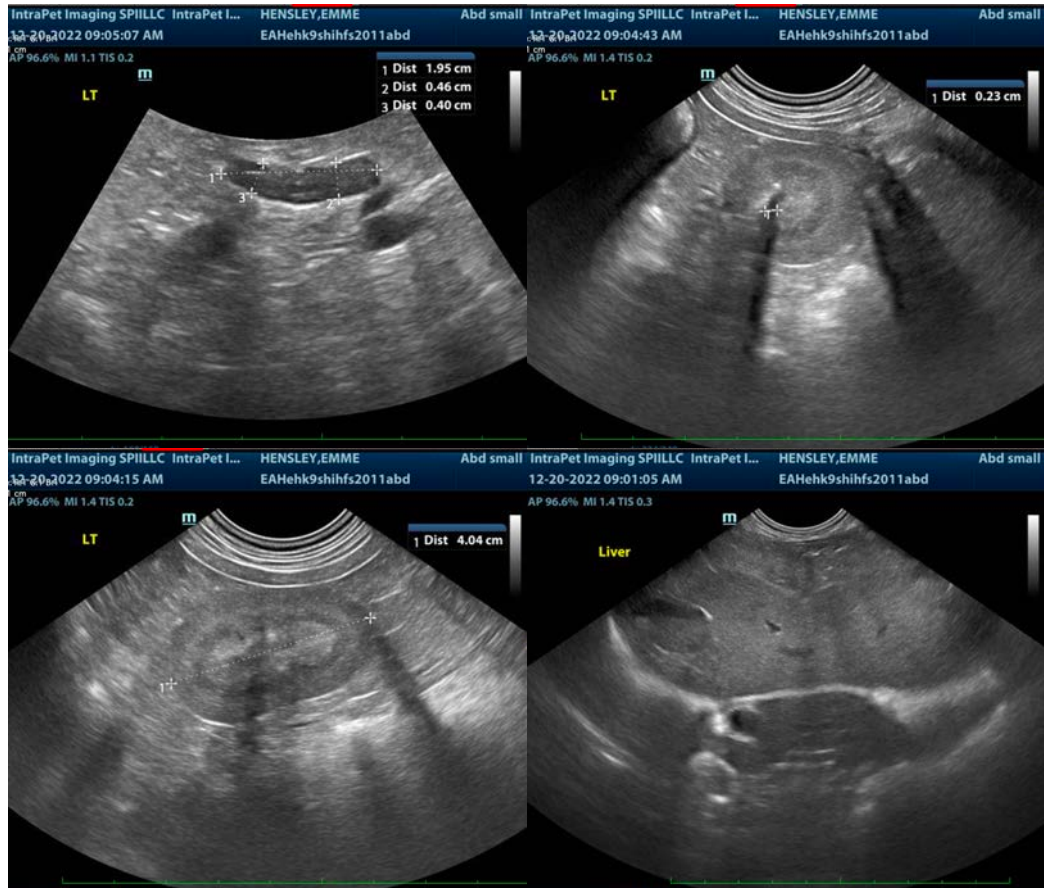
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of this patient's stomach may be normal ingesta secondary to delayed gastric emptying, given this patient's concurrent reported history of fecal impaction. If so, further evaluation of calcium dysregulation is recommended as a possible underlying cause, beginning with recheck ionized calcium and PTH if not recently evaluated.

Additionally, further evaluation of gastrointestinal health could be considered with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.

In the meantime, supportive/symptomatic medical management including ensuring adequate hydration, etc., with 12-24 hours of fasting and recheck imaging of the stomach, could be considered to further differentiate delayed gastric emptying of normal ingesta versus foreign material.





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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