

**DATE PRESENTING CLINICAL SIGNS**

3/3/22 P presented for several weeks of on and off vomiting, diarrhea, and lethargy after starting Gabapentin and Galliprant. Both medications were discontinued. P has had a history of chronic GI issues in the past.

PATIENT

Pierce Fry Current Medications: Gabapentin 200mg and Galliprant 60mg- both discontinued.

Lab Results: 2/17/22 ALT 143. 3/2/22 ALT 1603.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Pit Bull

Urinary System

The 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.

SEX

Neutered Male

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

AGE

3/5/08

The right kidney is normal in size (6.16 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

55.6 Pounds

The left kidney is normal in size (6.42 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 left adrenal gland is enlarged in size (3.21 cm long x 0.91 cm at the cranial pole and 1.01 cm at the caudal pole). Normal shape and contour are maintained. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

The right adrenal gland is enlarged in size (3.41 cm long x 1.16 cm at the cranial pole and 1.08 cm at the caudal pole). Normal shape and contour are maintained. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Eastern AH

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.

REFERRING VET

Dr. Wu

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.

INVOICE

35886

GB contains a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

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 mildly distended with very echogenic reverberation artifact from intraluminal gas. There is a highly reflective curve interface with very strong acoustic shadowing, believe to be gas and normal ingesta. However, given the acoustic shadowing, a gastric foreign body cannot be definitively ruled out. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 peritoneal effusion. There is no apparent lymphadenopathy.

PRIMARY 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.
- Early mucocele – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary depending hyperadrenocorticism vs normal variant.

SECONDARY FINDINGS

- Hyperechoic interface of the stomach with strong acoustic shadow – likely normal gas and ingesta. However, gastric foreign body cannot be ruled out.

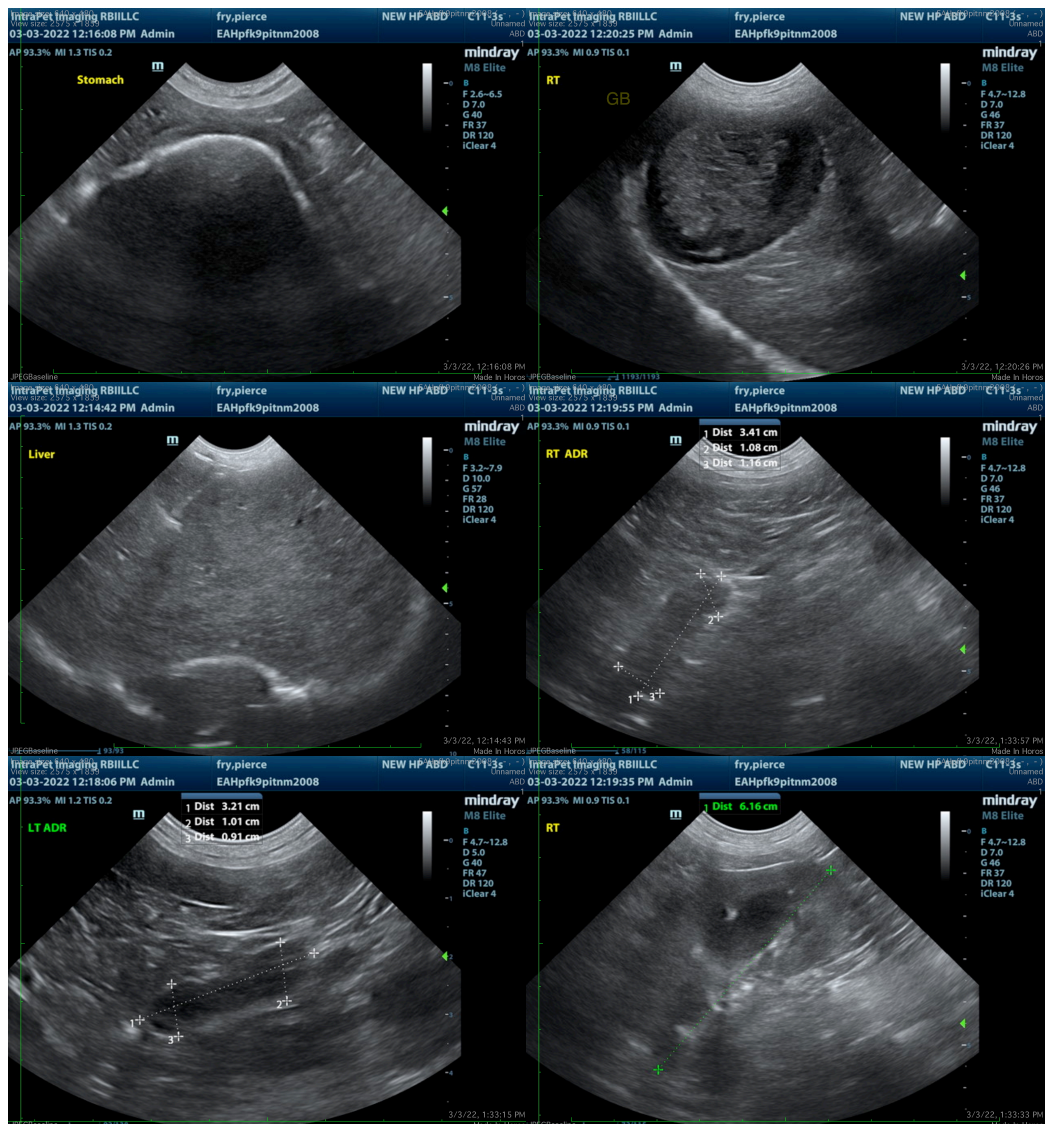
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's development of clinical signs and increased ALT following medications, discontinuing the medications and providing supportive care with monitoring of the liver enzymes for improvement could be considered. However, there are ultrasound changes that could also be contributing to the increased liver enzymes, and therefore further diagnostic considerations could include a fine needle aspirate of the liver if patient's coagulation status is appropriate, as well as testing for Leptospirosis.

If there are clinical signs of hyperadrenocorticism including polyuria, polydipsia, polyphagia etc., testing for hyperadrenocorticism could be considered with a low-dose Dexamethasone suppression test. However, the

liver enzyme changes in this patient are believed to be more likely related to the liver and concurrent gallbladder changes. Given the gallbladder changes, additional medical management besides discontinuing the reportedly already discontinued medications could include Denamarin, Ursodiol, broad-spectrum antibiotics, and close monitoring of the gallbladder.

If clinical signs persist and/or liver enzymes don't improve, a surgical cholecystectomy may be warranted, at which time a liver biopsy could also be obtained. If this patient does improve with medical management, close monitoring of the gallbladder is still recommended with a recheck ultrasound in 3 months. Finally, if vomiting persists, a limited recheck of an empty stomach is recommended to definitively rule out a foreign body. However, again, a foreign body is considered less likely than a strong gas shadow at this time.



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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