

**DATE**

1/2/23

PRESENTING CLINICAL SIGNS**PATIENT**

Pearly Grier

History: Adopted 10 days ago. Last night, owner noticed heavy breathing. Then owner noticed light tan diarrhea and she vomited clear watery fluid. Owner also has litter mate, and that puppy is asymptomatic. Owner has noticed a few bouts of sneezing since she was adopted. Has been eating fine but not sure how much compared to the other puppy. Pearl was the runt of the litter. Did drink a little bit of water this morning but then vomited in the care. Radiographs show evidence of pneumonia- but radiologist was concern about possible Peritneopericardial diaphragmatic hernia

SPECIES

Canine

Respiratory panel- positive for mycoplasma, bartonella after 48 hours- brighter, eating, but still oxygen dependent- radiographs taken 48 hours after presentation- worsening lung pattern.

BREED

Rottweiler

Current Medications: doxycycline, terbutaline, nebulization with gentamicin, albuterol, Dexamethasone, GI medications

Lab Results: See attached.

SEX

Intact Female

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

AGE

10/21/22

Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**WEIGHT**

108 Pounds

Urinary System

Urinary bladder is adequately 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.

INTERPRETED BYBeth Johnson, DVM
DACVIM

Left kidney is normal is size (5.02 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.

Right kidney is normal is size (5.48 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.

HOSPITAL NAMEAnimal Emergency
Hospital**Adrenal Glands**

Adrenal glands are small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 1.8 cm long x 0.24 cm at cranial pole and 0.28 cm at caudal pole. The right adrenal gland measures 1.73 cm long x 0.54 cm at cranial pole and 0.34 cm at caudal pole.

REFERRING VET

Dr. Goessling

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

INVOICE

20330

Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in

echotexture. 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 visible stomach wall is normal in thickness 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. Bowel is diffusely mildly fluid distended without evidence of an obstructive pattern, plication and/or visible foreign material. Small intestinal hyperperistalsis is noted.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

A very scant amount of anechoic free abdominal fluid is noted, most likely consistent with this patient's young age.

Other

There is no evidence of pericardial effusion or evidence of abdominal organs within the pericardium. A hernia cannot be definitively ruled out but isn't definitively visualized in these images.

Ring downs are visible at the level of the diaphragm.

ULTRASONOGRAPHIC FINDINGS

- Flat adrenal glands- potentially normal patient age variant, however, hypoadrenocorticism, while considered unlikely, can't be definitively ruled out.
- Splenic micronodular hyperplasia pattern – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia, or potentially an infectious disease change cannot be ruled out, especially given this patient's young age.
- Gastritis – Consistent with irritation secondary to dietary indiscretion or intolerance, infection (bacterial, viral, other), parasitic or protozoal disease, toxin, other metabolic disease such as pancreatitis, other. Microulceration cannot be ruled out.
- Gastroenteritis – Consistent with irritation secondary to dietary indiscretion or intolerance, infection (bacterial, viral, other), parasitic or protozoal disease, toxin, other metabolic disease such as pancreatitis, other.

- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Ring downs noted, consistent with the reported concurrent pulmonary pathology/pneumonia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's reported pulmonary disease, recommendations include continued medical management of the reported pneumonia. If clinical resolution does not continue and/or patient regresses, a bronchoalveolar lavage may be warranted for cytology, culture and sensitivity, etc.

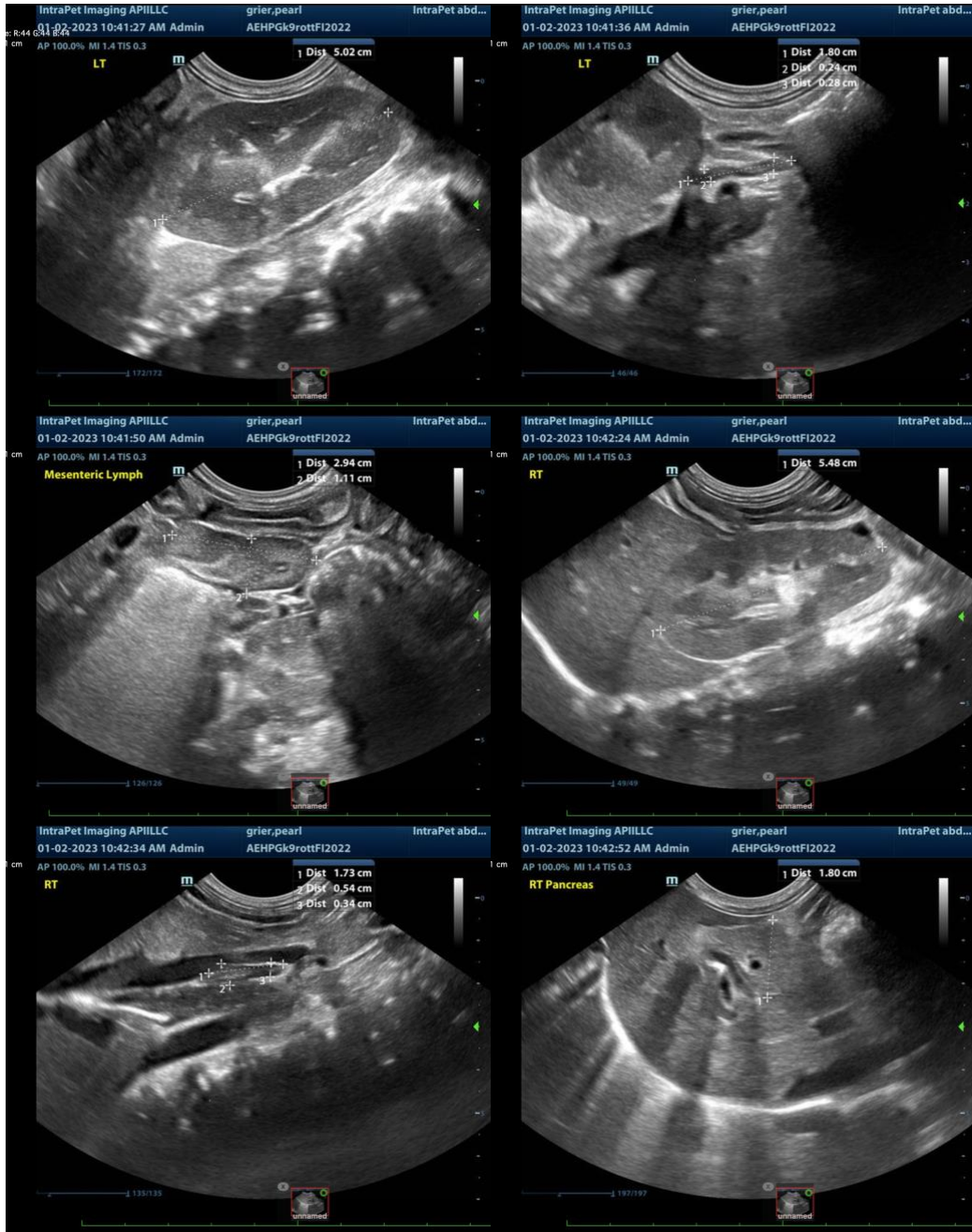
When patient is stable, further evaluation of the spleen could be considered in the form of a fine needle aspirate of the spleen, if patient coagulation status is appropriate.

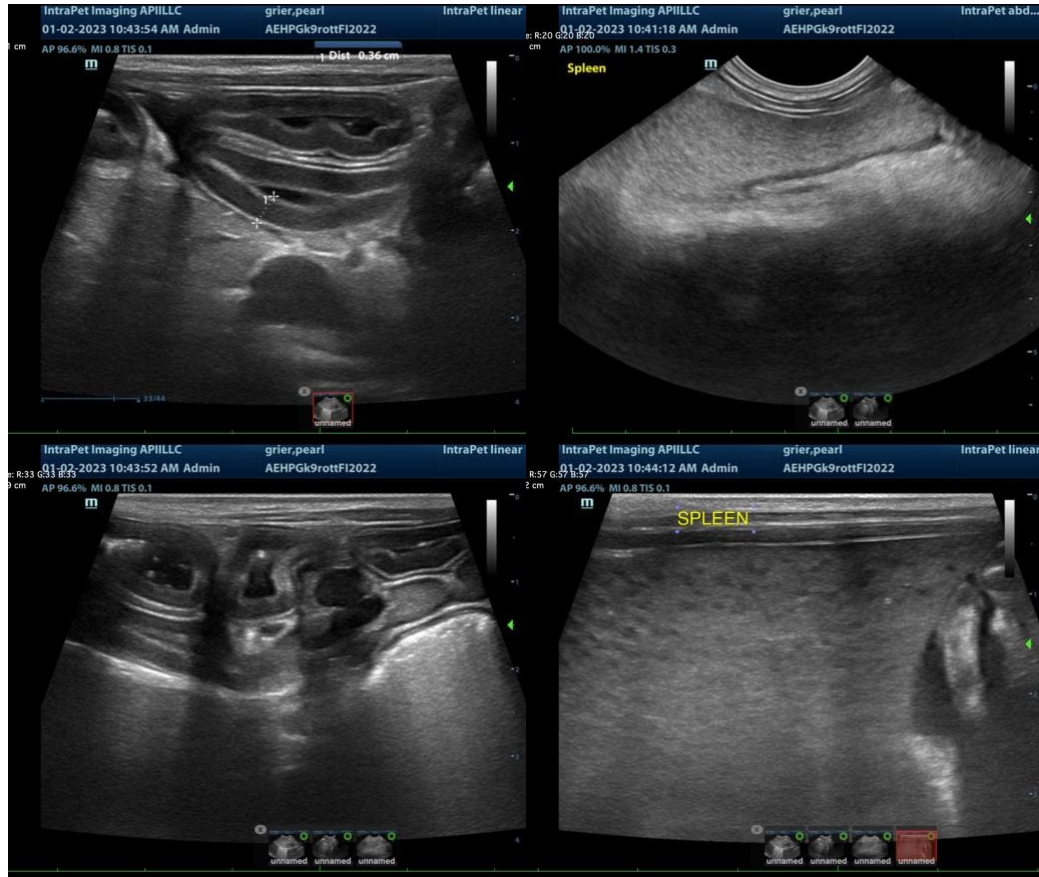
In the meantime, given the gastrointestinal tract changes, empirical deworming with a 5-day course of Panacur is recommended, in addition to supportive/symptomatic medical management of gastroenteritis, including fluid therapy, antiemetics, gastroprotectants, etc.

While the adrenal gland changes are more consistent with patient age vs hypoadrenocorticism, a baseline cortisol could be considered. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

There is no visible evidence of a hernia present in these images at this time. Recommendations include recheck thoracic radiographs upon clinical and radiographic resolution of the pneumonia, and if a hernia is still suspected, recheck abdominal ultrasound, as well as an echocardiogram is recommended.







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.

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