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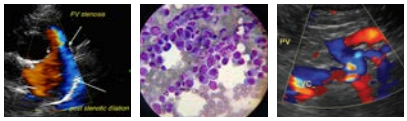

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**DATE**

12/15/22

**PATIENT**

Clementine Peterson

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

4/14/16

**WEIGHT**

10.2 Pounds

**INTERPRETED BY**

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

**HOSPITAL NAME**

Animal Emergency Hospital

**REFERRING VET**

Dr. Kalwa

**INVOICE**

43472

## PRESENTING CLINICAL SIGNS

PC: referral for anemia rDVM phone call: - 6.5 yr FS Calico - Adopted at 1 yr of age, indoor only - 2019 ill, HCT 12%, Inc Tbili / ALT , thyroid tested, FELV weak positive- sent out ISA- negative. Given steroids, doxycycline and baytril, treated for UTI- did better over 2 months and HCT wnl - Dec 2019- 2 month later PCV 40% - Oct 2020 PCV 36% - Did well past 2 years – Developed inappetence, lost 3 lbs, on exam Temp 97, Gallop rhythm 2/6 heart murmur, HCT 7.4%, PLT 52k, good jugular stick, ALT 157, thyroid, chem ok - NO UA - Did not need transfusion last time - likely needs blood transfusion. Date: 12-14-2022 Notes: ATO in room: - last week ate less, liked fresh food, still acted ok - Yesterday not eating, hid - Vomited yesterday am, clear water - Sneezing - Gave watered down wet food - Urinated on self - Indoor only - In past licked abnormal material

Current Medications: Gabapentin, Dexamethasone SP, Cyclosporine, Doxycycline, Vitamin B 12, Omeprazole, Cerenia.
Lab Results: See attached.
Radiographs: Spleen enlarged severe, rest NSF.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (4.03 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.93 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal in size measuring 0.40 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.37 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### *Spleen*

The spleen is large and hypoechoic, measuring 1.4 cm in width at the level of the hilus. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### *Liver*
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The biliary tract appears normal. The hepatic veins appear prominent. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder appears slightly prominent/thickened at 2.0 cm. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### *Gastrointestinal*
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.23 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### *Pancreas*
The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### *Free Abdomen*
There is a scant amount of free abdominal fluid. No lymphadenopathy. The omentum is of normal echogenicity.

### *Other*
A brief view of the heart was submitted. No significant pericardial effusion was seen.

## ULTRASONOGRAPHIC FINDINGS

- Large, hypoechoic spleen – No focal lesions are visualized but the spleen does appear somewhat “meaty” and “plump” in appearance. This could be due to extramedullary hematopoiesis, congestion, infiltration, etc. Recommend a fine needle aspirate.
- Subjectively prominent hepatic veins – Possible differentials would include fluid overload, cardiac disease, pericardial effusion, etc.
- Mildly prominent gallbladder wall – This is likely due to mild edema.
- Scant free abdominal fluid

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal mass lesions are visualized to associate with the anemia reported. Additionally, there is no evidence of abdominal hemorrhage. The spleen is somewhat thickened and enlarged. This could be due to extramedullary hematopoiesis, infiltration, congestion, etc. Recommend a fine needle aspirate.

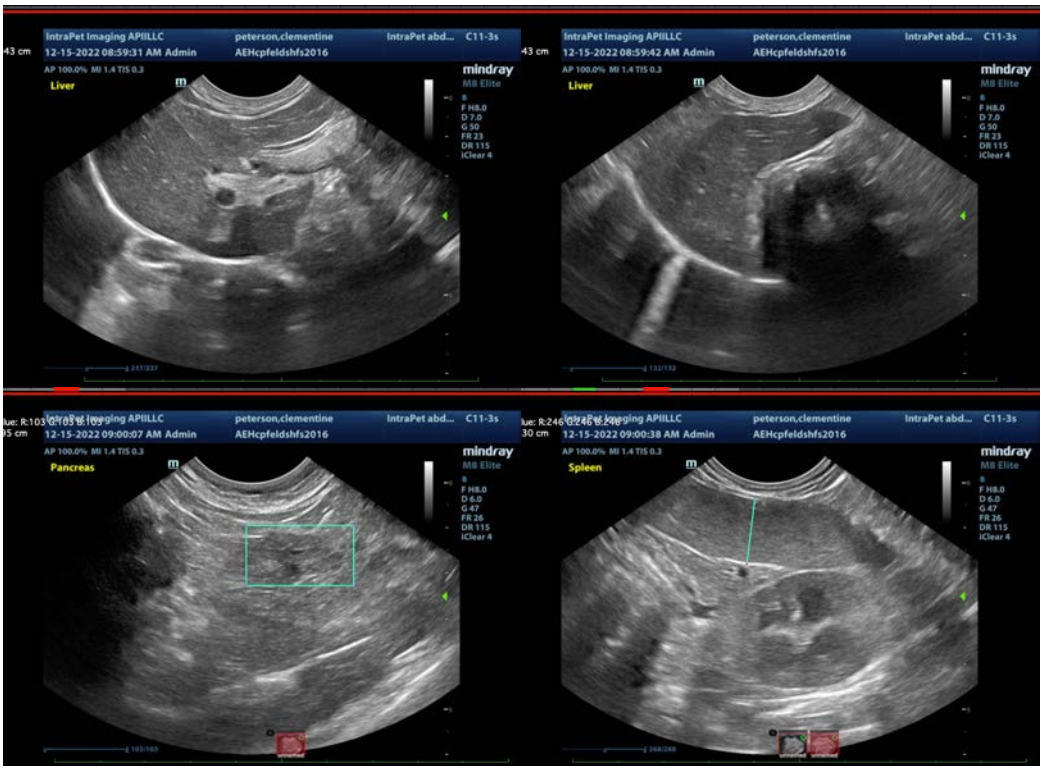
The pancreas is slightly prominent and mottled. This could be due to mild inflammation, hypoxia, or previous episodes of pancreatitis.

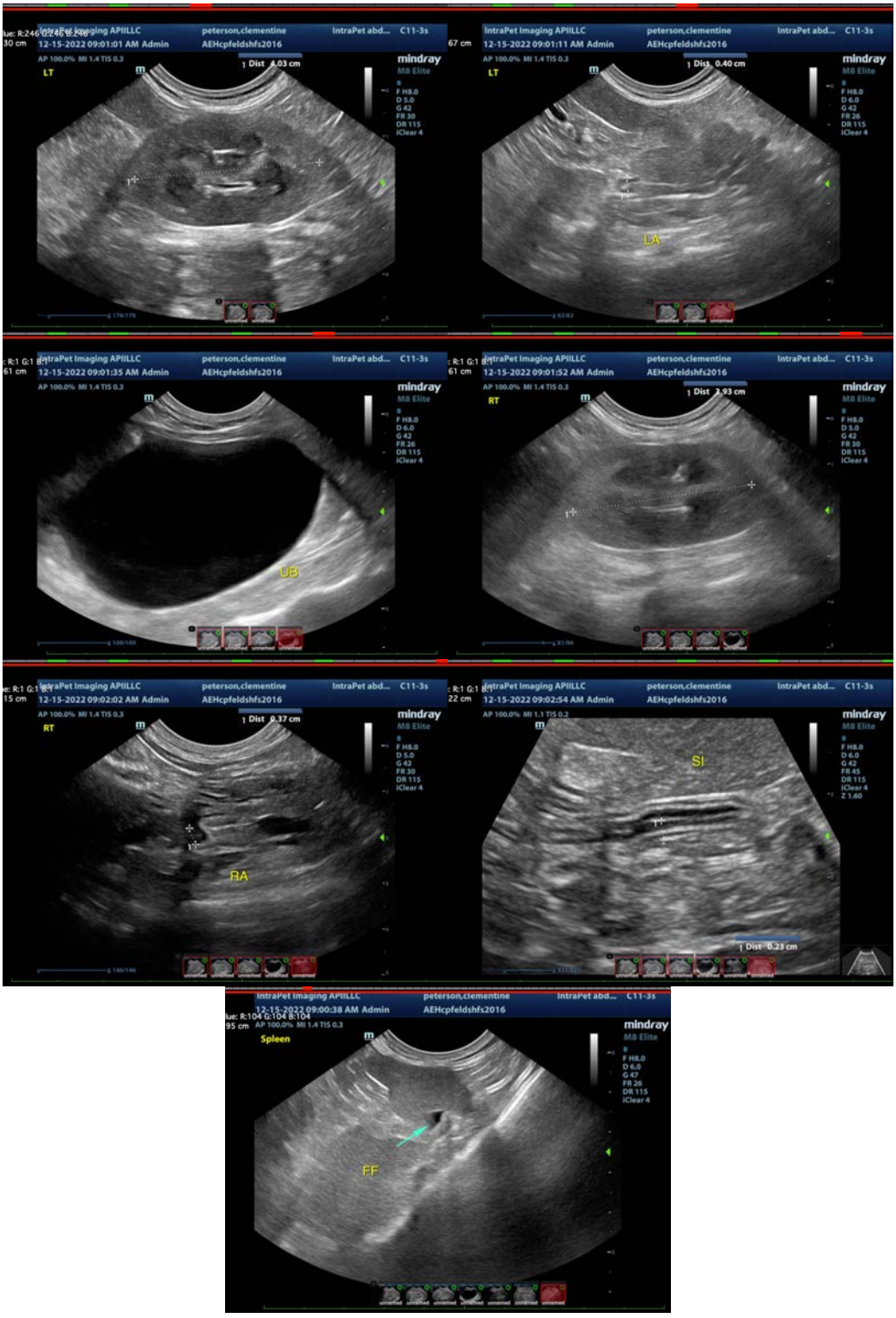
Additionally, the gallbladder wall is slightly thickened, likely due to edema.

Recommend a pathologist review of the blood smear and a reticulocyte count. If reticulocytes are up and this is a regenerative anemia, then consider the possibility of hemolysis or destruction. Consider vector borne disease testing (mycoplasma, etc.), and the possibility of hemolytic disease. If this is a non-regenerative anemia, then recommend a bone marrow aspirate for cytology and IFA for leukemia, looking for evidence of immune mediated disease directed at the bone marrow, neoplasia, feline leukemia, myelofibrosis, etc.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

There are mildly prominent hepatic veins visualized. This could be due to mild fluid overload secondary to a transfusion, etc., underlying heart disease, or could be within normal limits for this patient. Consider a cardiac ultrasound.

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**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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