



**PATIENT PRESENTING CLINICAL SIGNS**

Oscar Campbell

**Clinical Exam Findings/PE:**  
**Mentation:** Quiet, lethargic, and responsive.  
**Hydration:** 5% dehydrated

**SPECIES**

Canine

**Eyes, Ears, Nose:** No ocular discharge OU; no nasal discharge and airflow present bilaterally; mild debris AU; no significant abnormalities noted.

**BREED**

Terrier Mix

**Oral Cavity:** Grade 2/4 periodontal disease; mucous membranes are light pink and tacky; CRT 2 sec; no evidence of petechiation or ulceration; no foreign object or mass appreciated.

**Cardiovascular:** No murmur or arrhythmia noted, pulses were fair and synchronous.

**Respiratory:** Mildly increased respiratory abdominal effort and slight increase in RR, normal bronchovesicular sounds on all lung fields, no cough elicited on tracheal palpation

**Neurologic:** PLR (direct & consensual) positive OU, no pain elicited on manipulation and palpation of neck and spine; no obvious neurologic deficits noted (complete neurologic exam not performed).

**SEX**

Neutered Male

**Gastrointestinal/Urogenital:** Soft and non-painful abdomen with no evidence of mass or organomegaly on palpation

**Rectal:** Scant frank mucoid, bloody diarrhea with no mass or foreign material evident; anal glands soft and small, not expressed

**Peripheral Lymph Nodes:** Small, soft, smooth, and symmetrical

**AGE**

7 years

**Integument:** Hair coat in good condition for age and breed, no ectoparasites or dermatitis noted, mild dorsal scale

**Musculoskeletal:** BCS 4/9, mild generalize muscle wasting, mildly weak but no lameness during ambulation; no obvious orthopedic abnormalities noted (complete orthopedic exam not performed).

**WEIGHT**

5.8 kg

**Abnormal lab-work values:**

pvc: 30% tp:3.2 g/dL, lac: 1.8 mmol/L, BG: 103 mg/dL

BP (systolic): 58 mmHg

CBC: hct 27.8%, neut 12.63 K/uL, Lymph 1.0 K/uL, Mono 1.44 K/uL, Plt 43 L/uL

Plt estimate: pending

Chem 17: Gluc 63 mg/dL, Ca 7.5 mg/dL, TP 4.1g/dL, Alb 2.0 g/dL, Glob 2.2 g/dL, Chol 66 mg/dL, Amyl 1,929 U/L

UA(cysto):USG 1.014, sediment NSF, prot neg

Fecal pending

**INTERPRETED BY**

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**IMAGING PERFORMED BY**

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**Current Medications:** Metronidazole, weekly B-12 injections

**Radiographic Findings:** 3 view chest & abdom rads from 3/27 (today) pending

**HOSPITAL NAME**

Blue Pearl MP ER

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are mostly anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

**REFERRING VET**

Shannon Graham

The prostate is normal in size (1.07 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**INVOICE**

12527

The left kidney is normal in size (4.23 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**DATE**

3.27.23

The right kidney is normal in size (4.71 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

#### **Adrenal Glands**

The left adrenal gland is normal in size (0.57 cm at cranial pole) (0.53 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is in normal size (1.02 cm at cranial pole) (0.56 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

#### **Spleen**

The spleen is normal in size (10.9 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

#### **Liver**

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

#### **Gastrointestinal**

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. Several small intestinal segments are hyperperistaltic. The wall is diffusely thickened (up to 0.48 cm). There is disruption in the normal 1:3 muscularis: mucosal ratio in most segments. In one focal area of jejunum, there is an apparent loss of the normal layering pattern. The colonic wall is normal. The lumen of the ascending colon is mildly fluid-distended. The rest of the colon is empty. There is no obvious evidence of an obstructive pattern.

#### **Pancreas**

The pancreas is diffusely enlarged with irregular peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

#### **Free Abdomen**

The mesentery throughout the abdomen is hyperechoic. A small amount of free fluid is present. Two-three enlarged medial iliac lymph nodes are visualized (the largest measuring 2.44 cm in length). In addition, a few enlarged mesenteric lymph nodes are seen (the largest measuring 2.79 cm in length). The largest node is slightly rounded and hypoechoic. Several enlarged cranial abdominal lymph nodes are also seen, including portal nodes (the largest measuring 2.86 cm in length).

#### **Other**

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

\*\*\*Ultrasound-guided fine needle aspirates of a mesenteric lymph node were obtained at the end of the study without incident.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

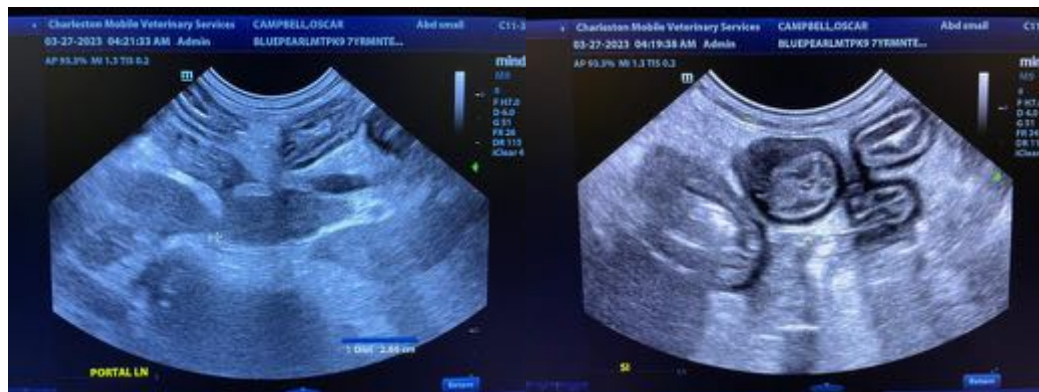
- The abdominal lymphadenopathy is most concerning for infiltrative neoplasia. Lymphoma is the top differential. However, a severe inflammatory process (i.e., pyogranulomatous) cannot be completely excluded).
- The bowel wall changes, particularly the focal area with a loss of the normal layering pattern, are also concerning for infiltrative neoplasia (i.e., lymphoma) with a lower possibility of a severe inflammatory process.
- The pancreatic changes are consistent with mild to moderate pancreatitis.
- Diffuse peritonitis is present, likely secondary to bowel and/or pancreatic pathology.

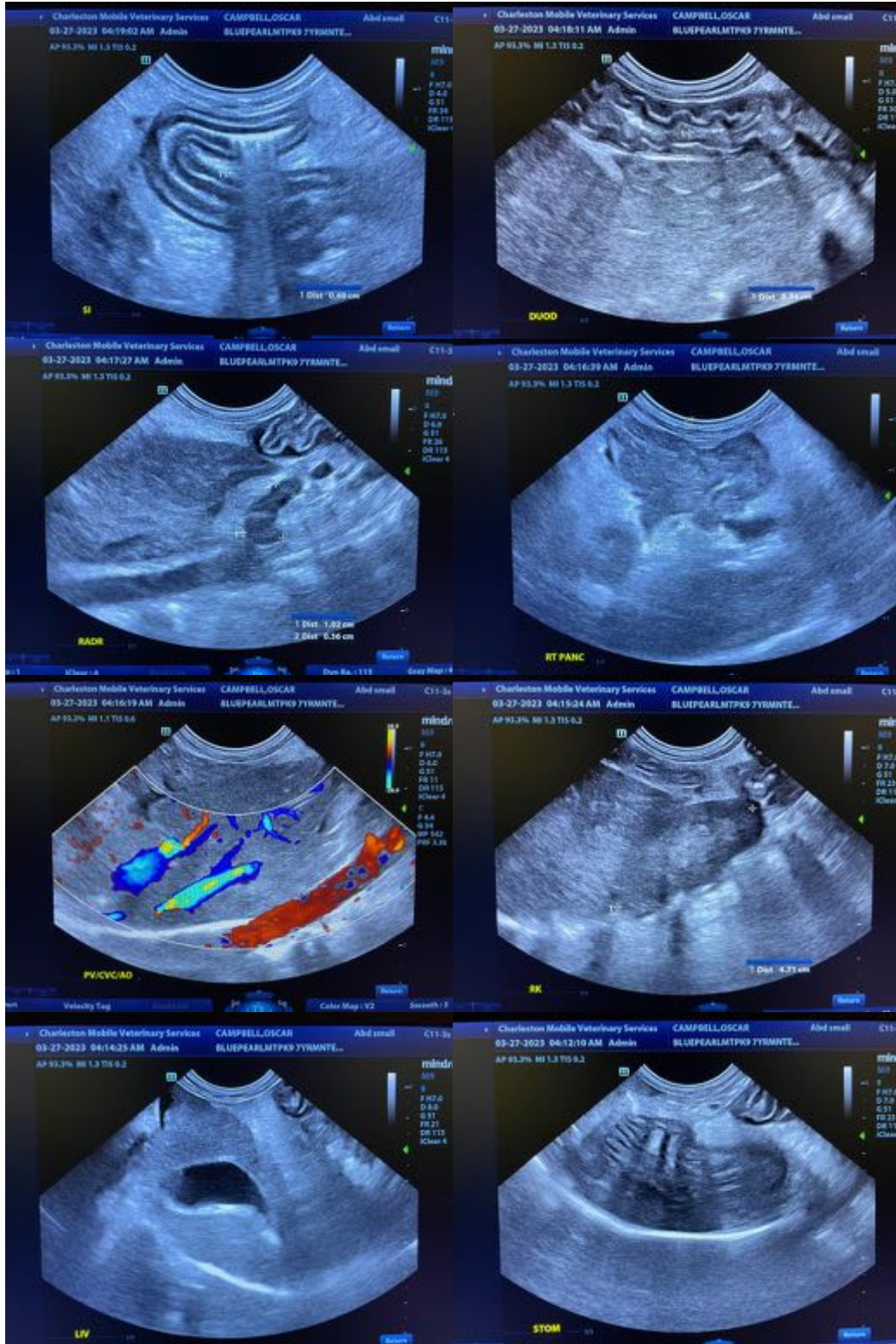
### Secondary Findings

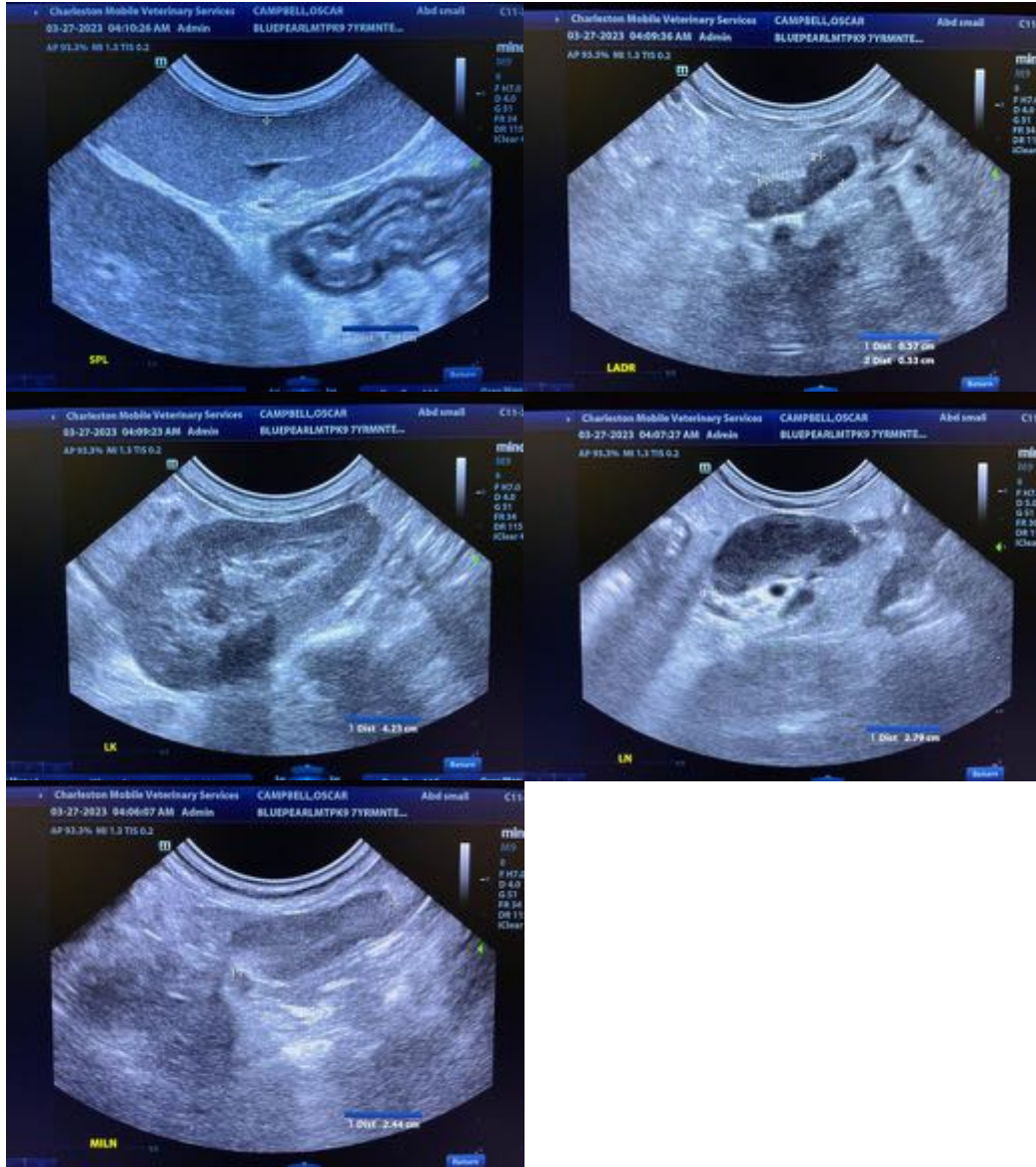
- The hepatic parenchymal changes could be consistent with vacuolar hepatopathy (i.e., idiopathic/endocrine), inflammatory disease, emerging neoplasia, other hepatopathy.
- Bilateral chronic age-related renal changes with dystrophic mineralization

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- If the abdominal lymph node cytology results are inconclusive, further testing (i.e., PARR, surgical biopsies of the bowel and abdominal lymph nodes) may be necessary to get a definitive diagnosis.
- While awaiting test results, symptomatic care is recommended.







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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