

**PATIENT PRESENTING CLINICAL SIGNS**

Rori Mislowsky Clinical Exam Findings: Rori is a 4yo FS Rhodesian Ridgeback who presented as a transfer for vomiting since Tuesday, lethargy and anorexia. She was treated as an outpatient on Tuesday and did not improve. BW was done with some abnormalities. Today x-rays showed a possible abdominal mass and free fluid. She was given fluids, Cerenia, and a pain medication and transferred to MP for further care.

**SPECIES**

Canine Hx, Pancreatitis  
No c/s/d, urine is orange in color, not eating or drinking.  
Current on vaccines, HW and flea.

**BREED**

Rhodesian Ridgeback

PE:  
Mentation: qar  
Hydration: moderate dehydration  
Eyes, Ears, Nose: No ocular discharge OU; no nasal discharge and airflow present bilaterally; mild debris AU; no significant abnormalities noted

**SEX**

Spayed Female

Oral Cavity: Grade 3/4 periodontal disease; mucous membranes are muddy/pink and moist; CRT 2 sec; no evidence of petechiation or ulceration; no foreign object or mass appreciated  
Cardiovascular: No murmur or arrhythmia noted, pulses were strong and synchronous.  
Respiratory: Eupnea, normal bronchovesicular sounds on all lung fields, no cough elicited on tracheal palpation

**AGE**

04-01-2018

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).  
Gastrointestinal/Urogenital: tense painful and potbelly abdomen with no evidence of mass or organomegaly on palpation

**WEIGHT**

52.7 lbs

Rectal: Not performed  
Peripheral Lymph Nodes: Small, soft, smooth, and symmetrical  
Integument: Hair coat in good condition for age and breed, no ectoparasites or dermatitis noted, mild dorsal scale

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM (*Small Animal Internal Medicine*)

Musculoskeletal: BCS 6/9, adequate musculature, no evidence of weakness or lameness during ambulation; no obvious orthopedic abnormalities noted (complete orthopedic exam not performed).

Abnormal lab-work values: CBC: WBC 17.02 (H), Bands suspected, Mono 9.33 (H), Eos 0.05 (L)  
Chem: Glu 225 (H), ALT 262 (H), ALP 658 (H), Tbili 1.5 (H), Chol 332 (H), Amyl 2278 (H), Lipa >6000 (H), Cl 104 (L)

**IMAGING PERFORMED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM (*Small Animal Internal Medicine*)

**Radiographic Findings:**

Thorax: No abnormalities are detected. The heart and pulmonary vasculature are considered within normal limits. The pulmonary parenchyma is also considered within normal limits. The cranial and the caudal mediastinum are normal.

**HOSPITAL NAME**

BP Mt Pleasant ER

Abdomen: an amorphous soft tissue mass is present cranial and medial to the left kidney as noted on the VD projection. The lesion is poorly seen due to the loss of serosal detail but measures approximately 11 cm x 13 cm and displaces the colon ventrally as noted on the lateral view. The liver, spleen, kidneys, bladder jejunum and colon are noted and are considered normal.

**REFERRING VET**

Fraser

**Assessment:**

A cranial dorsal mass is noted. While a splenic origin is a common scenario, its location and displacement of colon indicates the lesion is most likely retroperitoneal. Consider an adrenal or renal mass. Due to its large size a neoplastic process such as adrenal or renal carcinoma should be considered. Secondary peritoneal effusion is present. The next step is an abdominal ultrasound to further assess the origin of the mass, potential invasion of other organs and to perform an ultrasound guided biopsy or aspirate of the lesion.

**INVOICE**

12454

**DATE**

3.18.23

The heart, lungs and pulmonary vasculature are considered within normal limits. There is no evidence of pulmonary metastases.

## **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.

The left kidney is normal in size (9.20 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (8.05 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

### ***Adrenal Glands***

The left adrenal gland is normal in size (0.59 cm at cranial pole) (0.58 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 (1.04 cm at cranial pole) (0.72 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 subjectively normal in size (1.72 cm in width at the level of the hilus) with slight rounding at the poles. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

### ***Liver***

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

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 mildly fluid-distended. The gastric wall is normal in thickness with a normal layering pattern. The pyloric outflow tract appears to be patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains shadowing fecal material. There is no obvious evidence of an obstructive pattern.

### ***Pancreas***

The pancreas is diffusely enlarged, particularly on the right side, with irregular peripheral margins and hypoechoic/edematous parenchyma. The pancreatic duct is not overtly dilated. Surrounding mesentery is hyperechoic to saponified.

### ***Free Abdomen***

The mesentery throughout the abdomen is hyperechoic. A small amount of free fluid is present. Two to three prominent to enlarged mesenteric lymph nodes are visualized (the largest measuring 5.11 cm in length). The nodes are mildly hypoechoic and slightly irregular.

### ***Other***

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

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

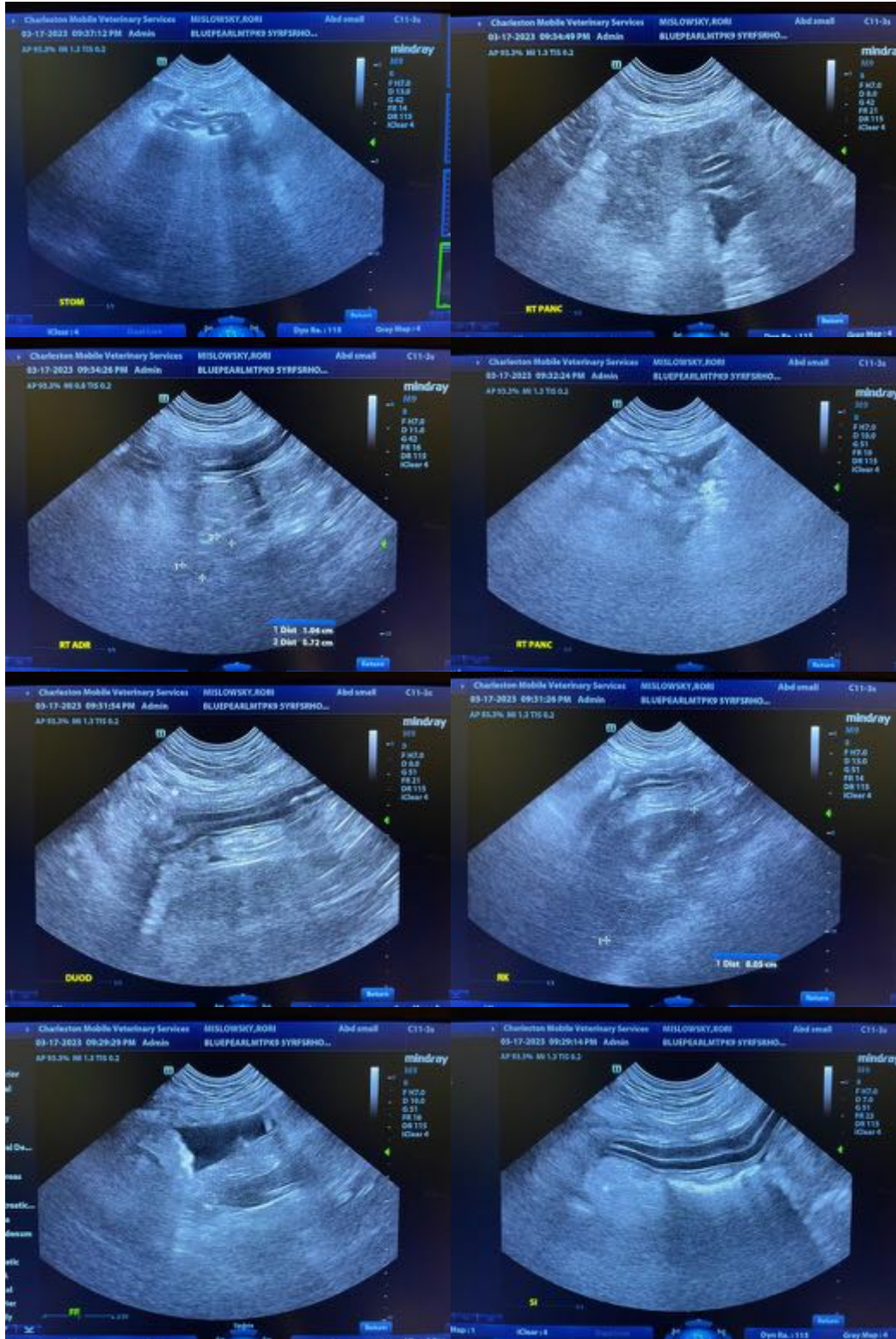
- The pancreatic changes are consistent with moderate to severe acute pancreatitis with adjacent peritonitis.
- The abdominal lymphadenopathy could be consistent with reactive lymphadenitis, lymphoid hyperplasia, or less likely, emerging neoplasia.

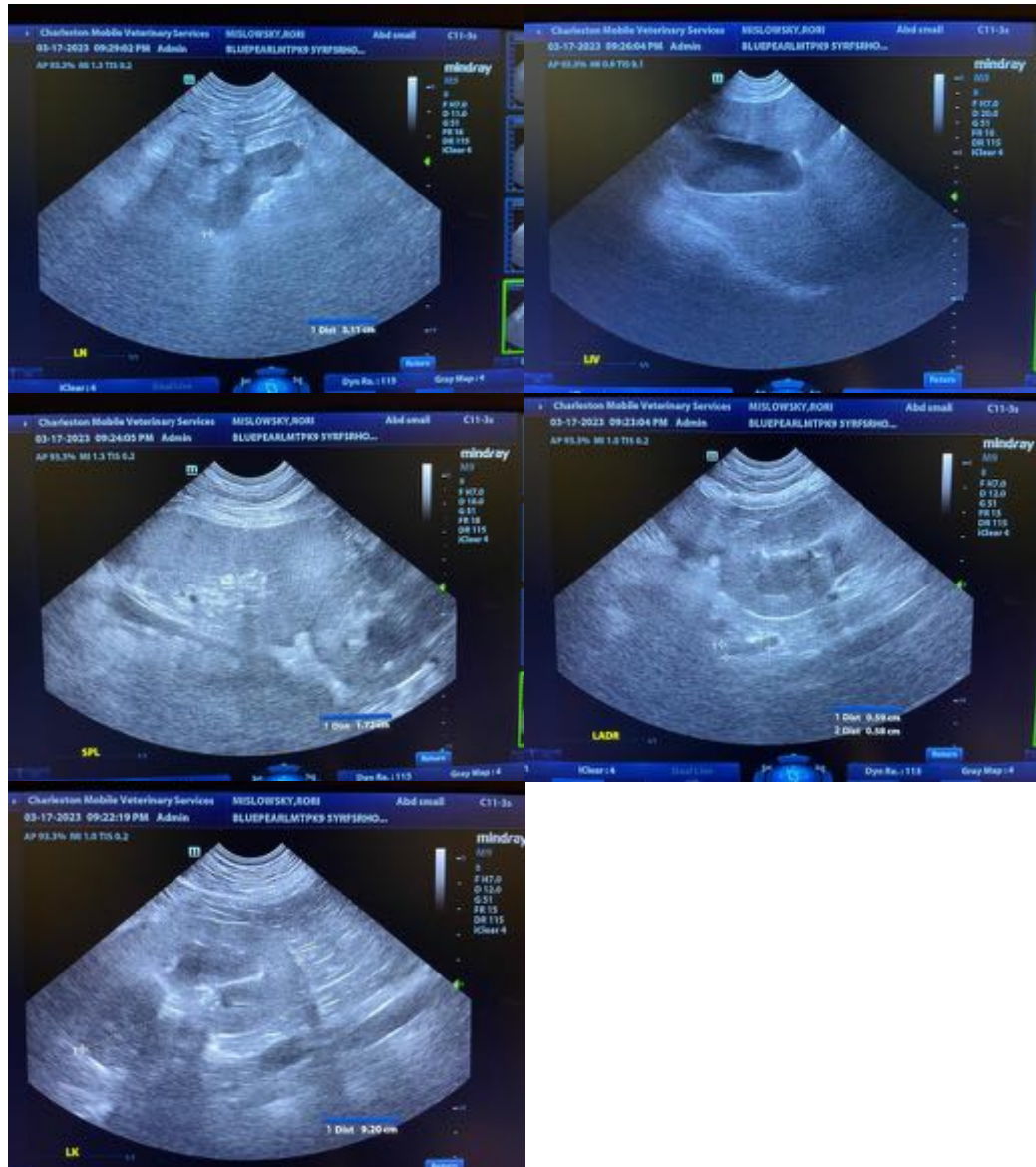
### **Secondary Findings**

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Supportive care for pancreatitis is recommended including IV fluid therapy, gastric protectants, antiemetics, pain medication as needed, +/- fresh frozen plasma. Consider nutritional support (i.e., via trickle feeding) as soon as the patient will tolerate it. Hyperbaric oxygen therapy may also prove beneficial in helping to reduce pancreatic inflammation.
- Serial sonographic monitoring (i.e., every daily) is recommended to assess for the development of pancreatic abscesses.
- Assessment of the patient's liver and kidney values is also recommended to evaluate for decline in metabolic function.
- Three-view thoracic radiographs should also be considered to assess for pulmonary/pleural effects of pancreatitis.





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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