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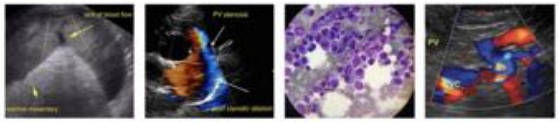


Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

PATIENT

Marshall Rainsford

SPECIES

Canine

BREED

CKC Spaniel

SEX

Neutered Male

AGE

11.2.2017

WEIGHT

7.8 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Blue Pearl Spec MP Emerg

REFERRING VET

Caroline Andrews, DVM

INVOICE

11464

DATE

8.22.22

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Marshall 4yr MN Cavalier King Charles Spaniel presents as a direct transfer for V, dehydration. O' reports that pt started V on Friday morning (clear liquid). Dental was done on Friday. Yesterday pt was lethargic and had NI in food (did eat small amount of peanut butter) Today pt has had NI in food again, lethargic and around 2p started V bile. O' took pt to primary, BW and Rads were done at that time. O' reports stomach was gas filled and was transferred for IVF.

PE - Mentation: Quiet, alert and responsive.
Hydration: 5% dehydrated
Eyes, Ears, Nose: No ocular discharge OU; no nasal discharge and airflow present bilaterally; mild debris AU; no significant abnormalities noted
Oral Cavity: Mild dental tartar and calculus; mucous membranes are 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
Neurologic: Appropriate mentation, normal CNN, no pain elicited on manipulation and palpation of neck and spine; no obvious neurologic deficits noted (complete neurologic exam not performed).
Gastrointestinal/Urogenital: Tense, no overt pain with palpation
Rectal: Normal stool color and consistency with no mass or foreign material evident; anal glands soft and small, not expressed
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
Musculoskeletal: BCS 6/9, adequate musculature, no evidence of weakness or lameness during ambulation; no obvious orthopedic abnormalities noted (complete orthopedic exam not performed).
Current Medications: Protonix and Cerenia IV
Radiographic Findings: Four radiographs of the abdomen dated 8/21/2022 and 3 follow-up radiographs of the abdomen dated 8/22/2022 and performed 8 hours after the first set and after fasting are available for evaluation.

Normal body condition.

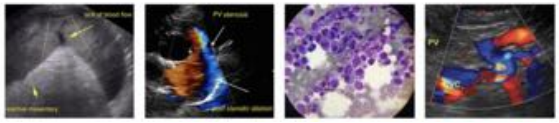
Mildly decreased peritoneal detail in the cranial abdomen visible on both sets.
The retroperitoneal detail is within normal limits on both sets.

No specific abnormalities in the visible portions of liver, spleen, kidneys and urinary bladder on both sets.

The stomach is moderately dilated with gas and fluid on the first set. The antrum pylori is partially gas filled on the left lateral view on the first set. the stomach remains mild/moderately dilated and filled with gas and fluid also on the second set. There is mild gas filling of the proximal descending duodenum visible on the left lateral view on the second set.

There is one moderately to severely dilated intestinal loop filled with gas and fluid visible in the cranioventral and central abdomen on the first set, it is still visible (minimally smaller in diameter) on the second set as well.
Few further mildly dilated small intestinal loops are also visible on the first set and stll present, slightly more dilated on the second set.
There is a second population of empty small intestinal loops.
Equivocal granular material visible in one loop in the caudoventral abdomen on the first set, unclear if in the small or large intestine. On the VD view it remains in the same position also on the second set.

Colon not clearly identified and rather empty on both studies.



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Narrowed T13-L1 intervertebral disc space with endplate sclerosis and moderate spondylosis.
Chronic complete oblique fracture visible in the body of S3 with rounded margins of the bone fragments and mild ventral displacement of the caudal fragment and tail.
Chronic complete transverse fracture visible in the os penis with mild callus formation incompletely bridging the fracture site.
Otherwise, the skeletal structures are within normal limits.
The caudo-dorsal thorax is within normal limits.

Assessment: Moderate gastric dilation visible on both studies with mixed fluid and gas in the lumen. There are some dilated small intestinal loops within the central abdomen visible on both studies with a 2nd population of emptying bowel.

A distinct foreign object is not visualized: there is some granular material visible in the abdomen which may represent foreign material in the small intestine or fecal material in the colon.

Radiographic findings are most likely compatible with a mechanical obstruction in the small intestine (e.g. jejunum) or a proximal obstruction (e.g. in the duodenum).
Less likely there is the possibility that a severe enteritis may mimic similar radiographic changes or that a foreign body may be partially obstructive/slowly moving aborally.

Depending upon the severity of the clinical signs, exploratory surgery might be justified. Otherwise, if additional pre-operative information are desired, abdominal US is recommended. Otherwise, if the patient is stable, continuing with medical management and fasting with repeat radiographs might also be considered.

Chronic discopathy T13-L1.
Chronic fracture at the level of the vertebral body of S3 as described above.
Chronic fracture in the os penis.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

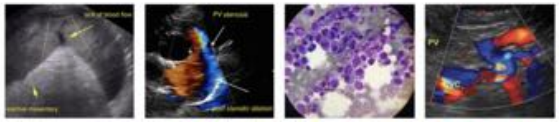
The **prostate** is prominent in size (1.87 cm in width) with normal curvilinear peripheral contours and mostly homogenous parenchyma. No distinct focal lesions are observed. The prostatic urethra is not overtly dilated.

The **left kidney** is normal size (5.25 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly hyperechoic. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The **right kidney** is normal size (5.81 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly hyperechoic. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is normal size (0.44 cm at cranial pole) (0.49 cm at caudal pole) (1.58 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are



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unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is normal size (1.03 cm at cranial pole) (0.55 cm at caudal pole) (1.74 cm in length); normal shape; 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 (1.30 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 0.66 cm irregular, hypoechoic nodule is observed at the medial aspect, near the hilus. 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 portal vein to caudal vena cava ratio is approximately 1: 1.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The **gastric lumen** is severely fluid distended and hypomotile. Within the fluid, small, linear, hyperechoic shadowing structures are visualized. The gastric wall is normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The duodenum and proximal jejunum are fluid-distended and hypomotile. Approximately mid-jejunum, a shadowing foreign material is observed within the lumen. The wall of this region is slightly thickened and irregular. The mesentery effacing the serosal surface is hyperechoic. Distal to this region, the lumen is minimally fluid-distended with normal wall-thickness and retention of the normal layering pattern. The colonic wall is normal.

Pancreas

A portion of the **pancreas** is obscured by the severe gastric distention. In the visualized portions, no obvious pathology is observed.

Free Abdomen

A small amount of free fluid is present. The abdominal **lymph nodes** are normal/not visible.

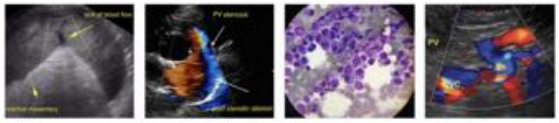
Other

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Suspected mid-jejunal foreign body/obstruction with regional peritonitis. There is questionable foreign material within the gastric lumen.
- The hyperechoic renal cortices may be a normal variant for this patient or may represent interstitial nephrosis/nephritis. Correlation with the patient's renal values is recommended.



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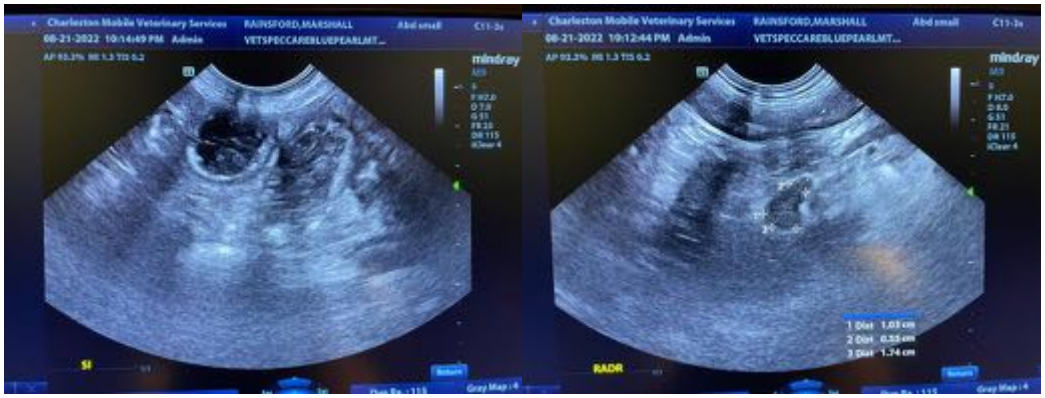
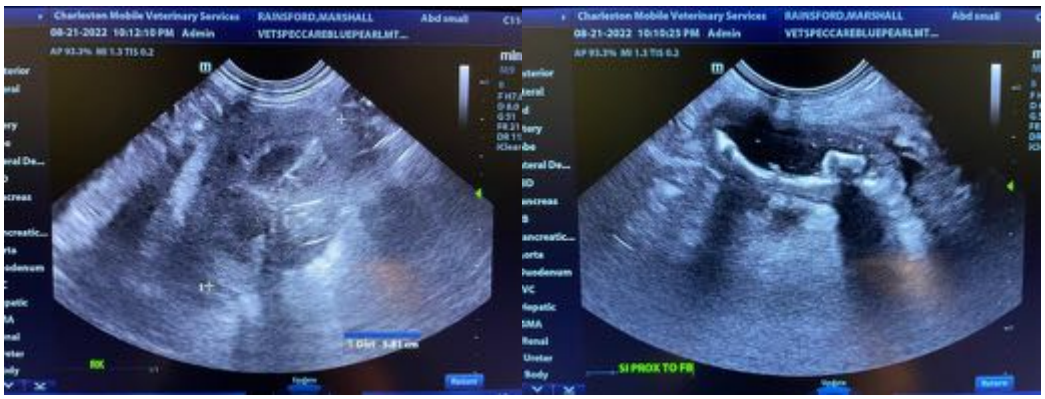
Secondary Findings

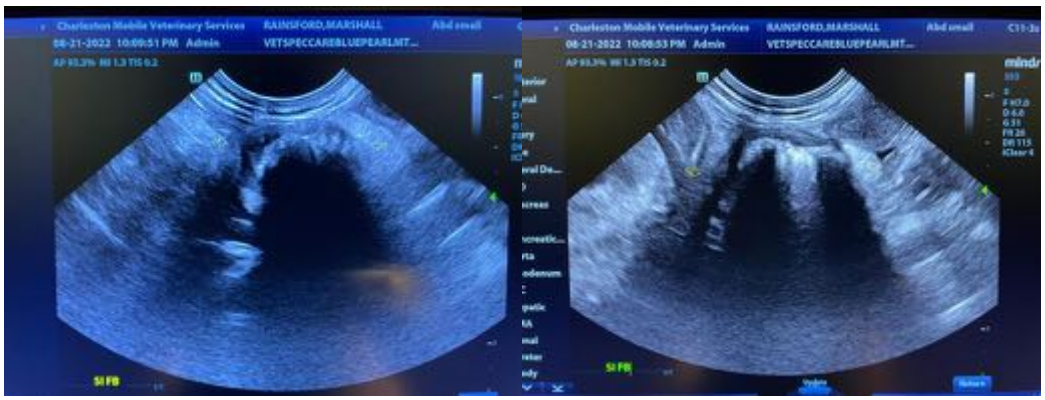
- The hypoechoic splenic nodule trends toward the benign (i.e., focus of lymphoid hyperplasia, extramedullary hematopoiesis or similar) with a lower possibility of an emerging tumor.
- The mild prostatomegaly may be a normal variant for this patient or may represent late-in-life neutering (if applicable) or less likely, an emerging tumor.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An abdominal exploratory with foreign body removal is recommended. Consider three-view thoracic radiographs prior to anesthesia to assess for occult aspiration pneumonia. Baseline lab-work is also recommended, including a CBC chemistry panel, urinalysis and T4 to assess overall metabolic function.







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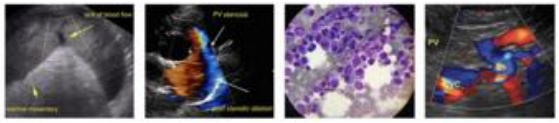

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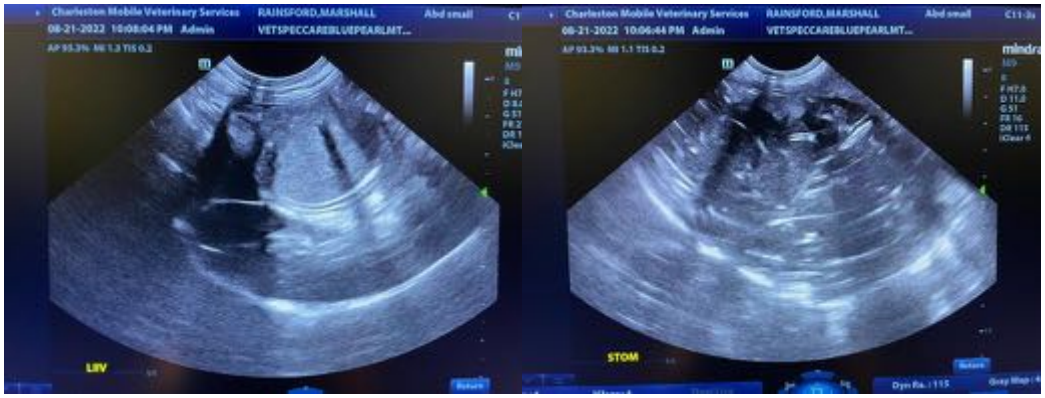

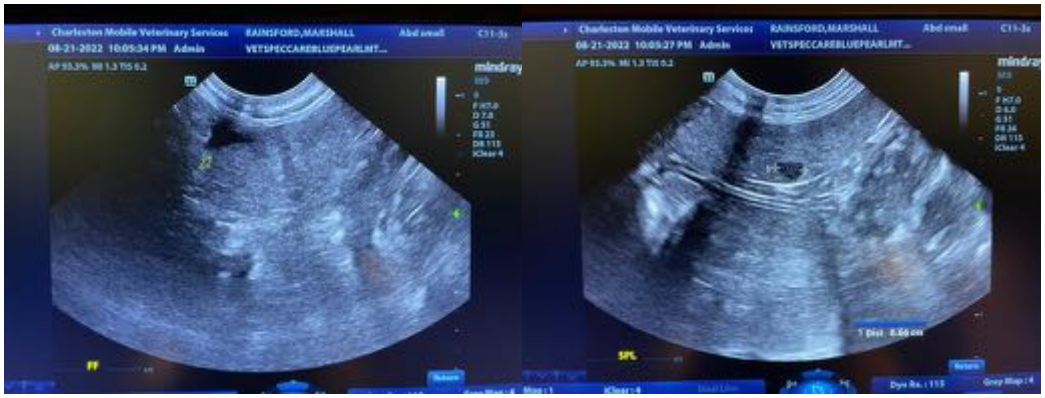

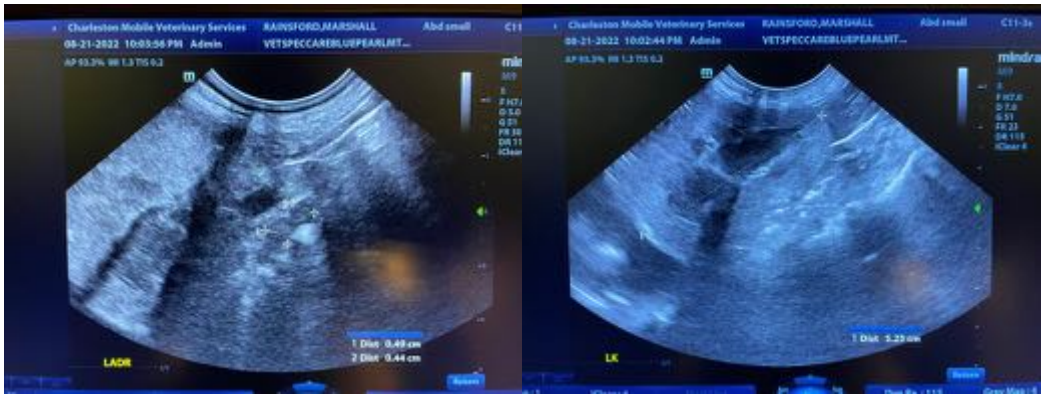

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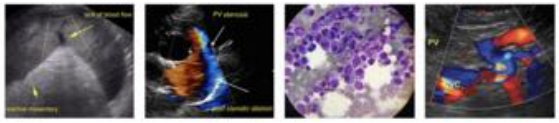

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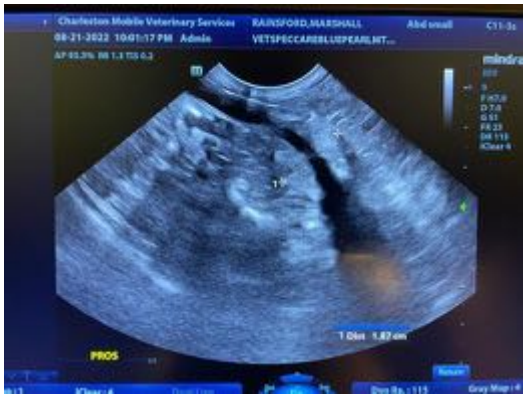

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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