

**PATIENT PRESENTING CLINICAL SIGNS**

Luke Bryant Tri-cavitary effusion. Muffle heart sounds, hind limb weakness, soft non formed stool

**SPECIES** Alb 1.8, chol 59, k 5.9  
Pcv/ts: (peripheral blood): 34/4.6 last night 30/4

Canine Peritoneal- 0/3.6  
Pleural- 0/0.6  
Pericardial with suspected blood contamination- 33/4.4

**BREED** Ua- no protein or significant findings

Lab **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**SEX**

Female, spayed The urinary bladder, trigone, and pelvic urethra are 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.

**AGE**

13 Yrs. The prostate is normal in size (0.57 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**WEIGHT**

29.7 kg. The left kidney is normal in size (6.94 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Mild pyelectasia is present (0.59 cm in the transverse plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DVM, Diplomat ACVIM  
(Small Animal Internal Medicine)  
The right kidney is normal in size (6.49 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild 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*

**IMAGING PERFORMED BY**

Andrea Nicastro, DVM, Diplomat ACVIM  
(Small Animal Internal Medicine)  
The left adrenal gland is normal size (0.49 cm at cranial pole) (0.57 cm at caudal pole) (1.94 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.

The right adrenal gland is normal size (0.51 cm at caudal pole) (1.73 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.

**HOSPITAL NAME**

Blue Pearl

**REFERRING VET**

*Spleen*

Dr. Shannon Graham The spleen is subjectively prominent in size (3.39 cm in width at the level of the hilus) with slightly swollen peripheral contours. The parenchyma is subtly mottled in appearance. No distinct focal lesions are observed. Splenic vasculature appears normal with no evidence of thrombosis.

**INVOICE**

13204

*Liver*

**DATE**  
4/13/22

The liver is subjectively enlarged with irregular contours in the right lateral lobe/caudate process. The parenchyma is hypoechoic relative to the spleen and diffusely mottled, bordering on a nodular



**PATIENT**

Luke Bryant

appearance. The right lateral lobe/caudate process is swollen with irregular peripheral contours and a questionable mass effect. Vascular and biliary tracts are of normal volume with no evidence of congestion.

**SPECIES**

Canine

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

**Gastrointestinal**

**BREED**

Lab

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. 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. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The wall of the descending colon is moderately thickened (0.57 cm) with apparent retention of the normal layering pattern. The colonic lumen contains some liquid appearing fecal material. No obstructive disease is noted.

**SEX**

Female, spayed

**Pancreas**

**AGE**

13 Yrs.

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

**WEIGHT**

29.7 kg.

**Free Abdomen**

A moderate to large amount of anechoic free fluid is present. The mesentery throughout the abdomen is hyperechoic. A few prominent lymph nodes are observed in the caudal abdomen, the largest measuring 1.71 cm in length. The nodes are slightly rounded and mildly hypoechoic.

**INTERPRETED BY**

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

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Swollen, irregular right liver. Differentials include neoplasia, passive congestion, inflammatory disease, regenerative nodular hyperplasia, vacuolar hepatopathy, other.
- Ascites with associated peritonitis. This may be secondary to right sided congestive heart failure, low albumin, increased vascular permeability or some combination thereof.

**Secondary Findings:**

- Minor, bilateral age-related renal changes with dystrophic mineralization.
- The caudal abdominal lymphadenopathy could be secondary to a reactive lymph adenitis, lymphoid hyperplasia or infiltrative neoplasia.
- The splenic parenchyma changes are most consistent with a benign process such as passive congestion, lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The colonic wall changes are most consistent with inflammatory process with potential for emerging neoplasia.

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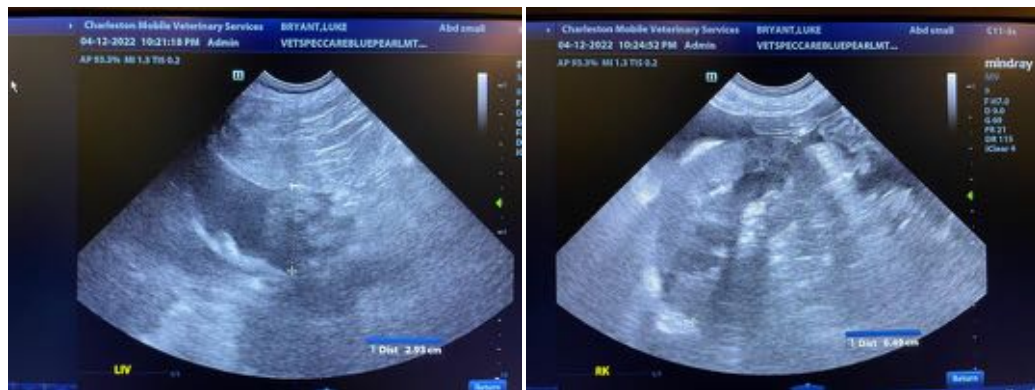
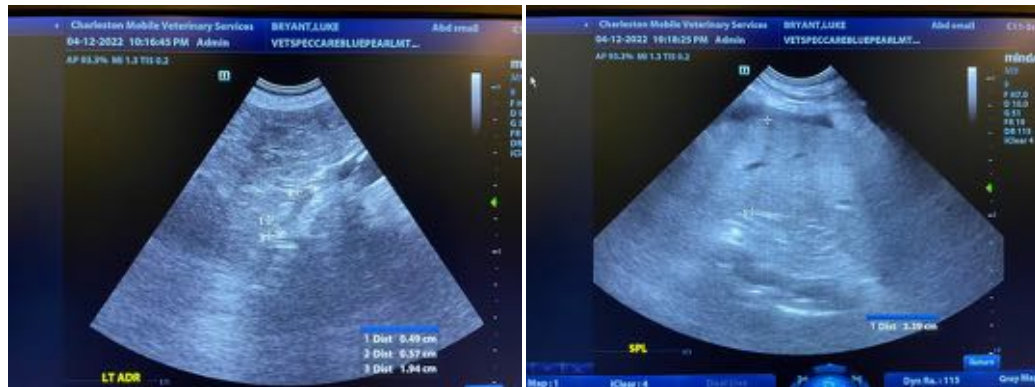
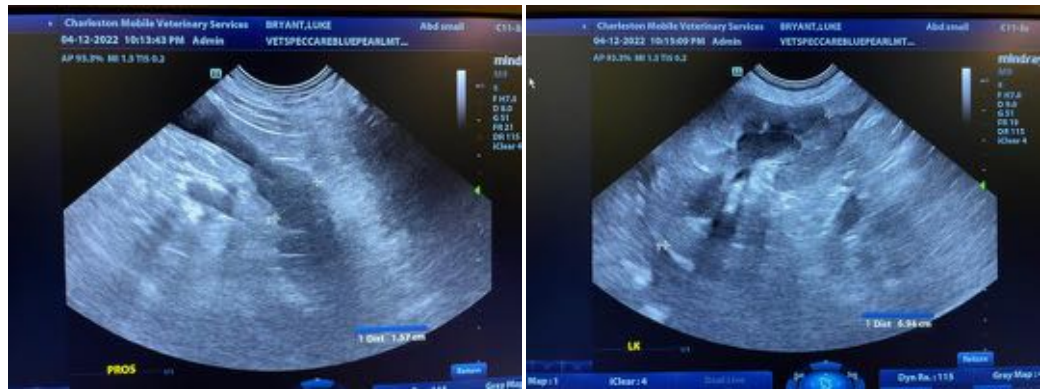
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Depending on the results of the echocardiogram, further workup for the liver (hepatic aspirates or biopsies, pre- and post-prandial serum bile acids) and hypoalbuminemia (i.e., UPC, fecal evaluation for ova and Giardia, resting cortisol level, GI biopsies) may be warranted.
- Submission of the abdominal +/- pleural fluid for analysis and cytology is also recommended.





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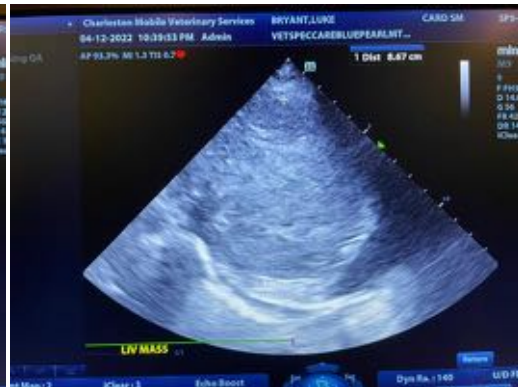
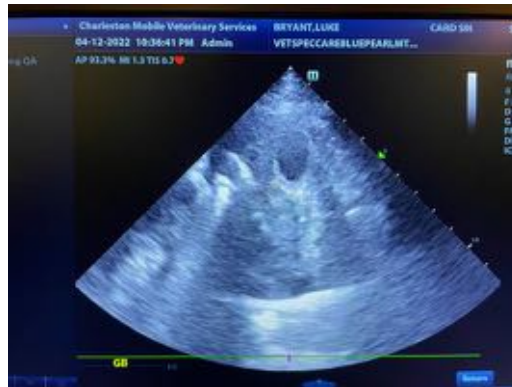
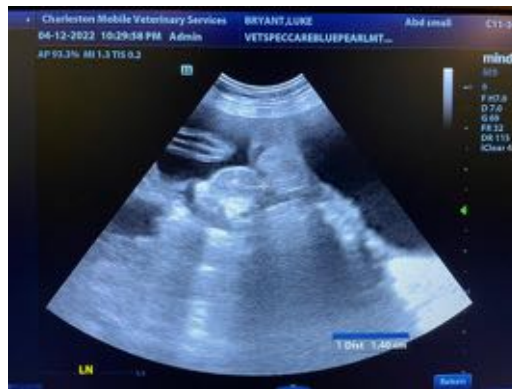
Dr. Shannon Graham

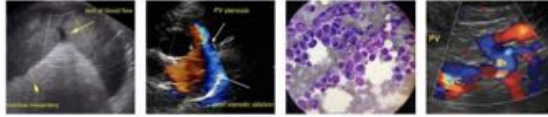
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#### PATIENT

Luke Bryant

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.

#### SPECIES

Canine

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.

#### BREED

Lab

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

[Andrea.Nicastro@CharlestonMobile.net](mailto:Andrea.Nicastro@CharlestonMobile.net)

#### SEX

Female, spayed

#### AGE

13 Yrs.

#### WEIGHT

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