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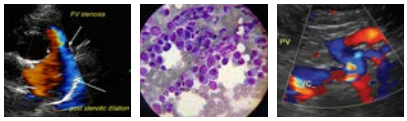

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DATE

6/22/22

PATIENT

Lola Knight

SPECIES

Canine

BREED

Corgi X

SEX

Spayed Female

AGE

5/15/12

WEIGHT

36 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Taylorsville VC

REFERRING VET

Dr. Bray

INVOICE

38972

PRESENTING CLINICAL SIGNS

Decreased appetite, bloated abdomen, Hx of bladder uroliths, Hx of elevated ALT and renal values.

Current Medications: None.
Lab Results: Mild non-regenerative or early regenerative anemia, hypochromic, Slight decrease in Retic-Hgb: sequestration vs iron deficiency, Lymphopenia likely stress related, Increased Nucleated RBC, trying to regenerate?. Increased PLT, stress vs HAC. Chem: Elevated ALT and ALP: Liver disease? HAC. TT4: Low, likely euthyroid sick vs truly hypothyroid. Fluid analysis: Modified transudate. Portal hypertension, hepatic disease, right sided heart failure, space occupying lesions or non-exfoliative inflammatory or neoplastic conditions. Not associated with low albumin (PLE or PLN)
Radiographs: Fast US: Free fluid in abdomen. Urinary bladder wall is very thick, moderate amount of anechoic urine present with some shadowing effects on ventral wall. No obvious uroliths seen, may just be mineralization. Abdominocentesis- cloudy clear fluid, transudate or modified transudate likely vs exudate but need fluid analysis.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Declined.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is distended with a large amount of primarily suspended echogenic debris present. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris. There are at least two shadowing calculi visible in the dependent portion of the urinary bladder, measuring 1.8 cm and 1.1 cm. Recommend urinalysis and culture and correlate stone number and size with abdominal radiographs.

The left kidney has a normal shape and size (5.5 cm) with non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.24 cm) with non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is unable to be visualized due to patient discomfort when scanning in the area.

The right adrenal gland is not clearly visualized, but there is a mass effect in the area that appears to be invading the caudal vena cava and creating a very large mass effect/clot. This is most consistent with a right adrenal mass, measuring at least 2.5 cm x 3.47 cm. There is a soft tissue density within the caudal vena cava, most consistent with invasion of that mass lesion +/- clot. The obstruction of the caudal vena cava measures at least 8.29 cm in length and 2.07 cm wide.

Spleen

The spleen is small in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized, but the spleen overall appears hypovolemic.

Liver
The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 normal and isoechoic to surrounding 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 large amount of mildly echogenic free fluid. No significant lymphadenopathy noted. The omentum is of increased echogenicity.

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

PRIARY FINDINGS

- Large mass effect visualized within the caudal vena cava – This appears to be arising from a mass lesion most consistent with the right adrenal gland. Most likely differentials would be a pheochromocytoma or carcinoma.

- Large amount of intraluminal debris and calculi within the urinary bladder – recommend urinalysis, culture, and correlate size and number of stones with radiographs.

- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The liver is likely congested due to obstruction of the vena cava.

SECONDARY FINDINGS

- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Hypovolemic, small spleen.
- Large volume free abdominal fluid – This fluid has been analyzed and is determined to be a modified transudate, consistent with obstruction of the caudal vena cava.

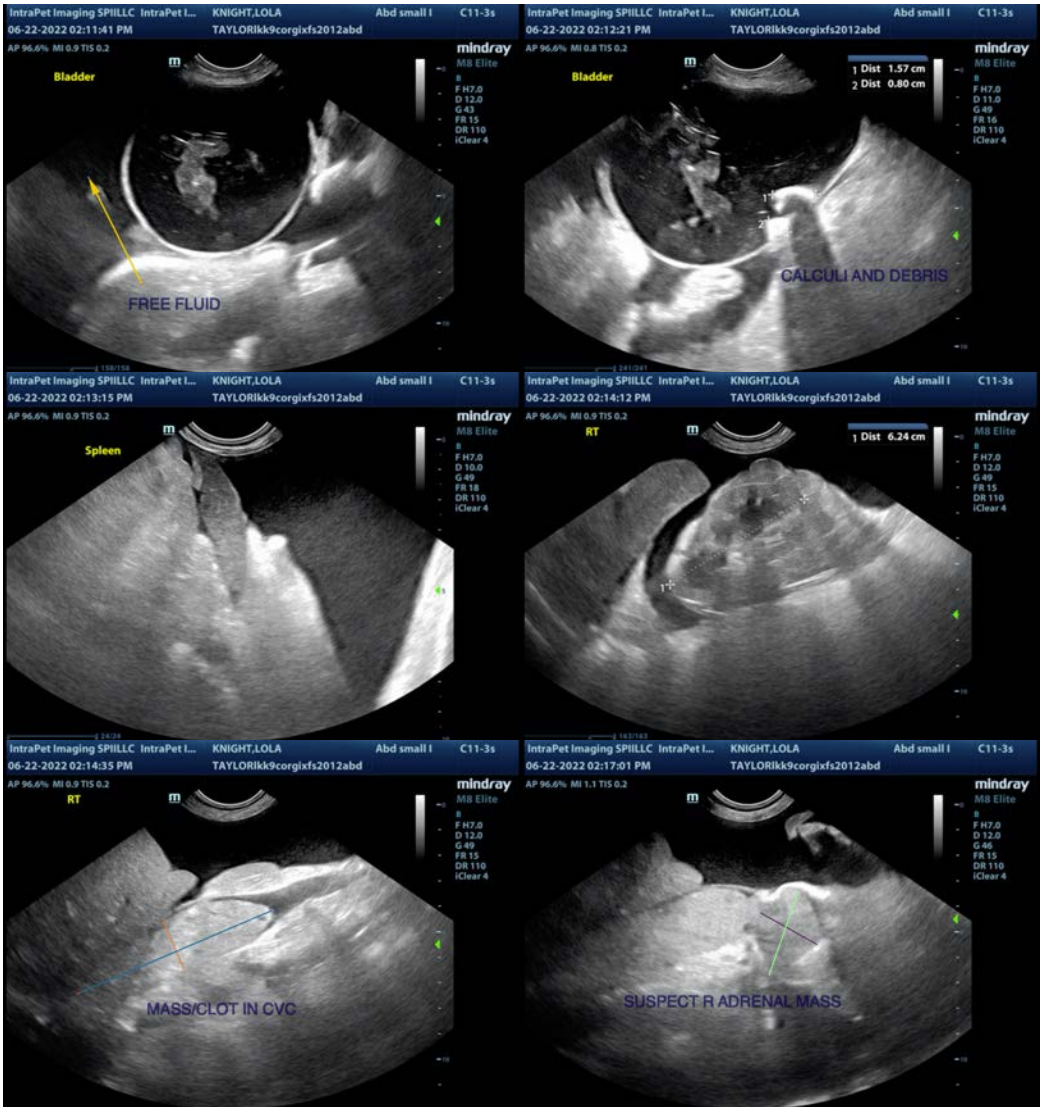
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large volume of free abdominal fluid present. This modified transudate is the result of the mass lesion obstructing the caudal vena cava. This patient is very painful on scanning, so adequate evaluation of the deeper structures is difficult without more sedation/pain medications on board, but there is the suspicion of the right adrenal lesion, which could be invading the caudal vena cava, causing the obstruction. Options moving forward include either palliative care or advanced imaging to evaluate for possible surgical intervention.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Additionally, there is a large amount of echogenic debris in the urinary bladder, and calculi. Evaluation of this lesion would require a urinalysis, culture, and radiographs to confirm the size and number of stones evident.

Prognosis is extremely guarded.



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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