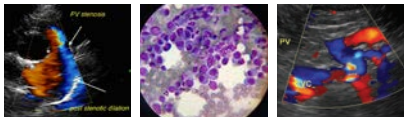
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

7/7/22

PATIENT

Charlie Dallas

SPECIES

Canine

BREED

Boxer

SEX

Neutered Male

AGE

11/9/15

WEIGHT

82 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Everhart Vet Hospital

REFERRING VET

Dr. Baumler

INVOICE

39282

PRESENTING CLINICAL SIGNS

P presented for >1mo history of green/brown discolored urine. 5/12/22 initial presentation -- UA USG 1.040, blood 3+, protein 3+ -- no response to empirical cefpodoxime course. 6/24/22 second presentation for continued discolored urine PE WNL; CBC NSF, chem ALP155, T4 1.9,
UA blood 3+ protein 3+ no bacteria, urine culture no growth detected.

Current Medications: None.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (1.3 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney is somewhat irregular in shape (likely due to previous infarcts), measuring 7.28 cm with occasional pinpoint 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 or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.63 cm) with pinpoint 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 normal in size measuring 0.65 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.75 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal 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. There is an ill-defined, hypoechoic nodule visualized measuring 0.80 cm.

Liver

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

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. 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

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Slightly irregular left kidney – likely due to previous infarct. The solitary renal lesion identified is ill defined and hyperechoic, this could be consistent with a previous renal infarct and can be an indicator of current or previous renal disease.

- Bilateral pinpoint non-obstructive nephroliths – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Mottled spleen with ill-defined, hypoechoic nodule – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

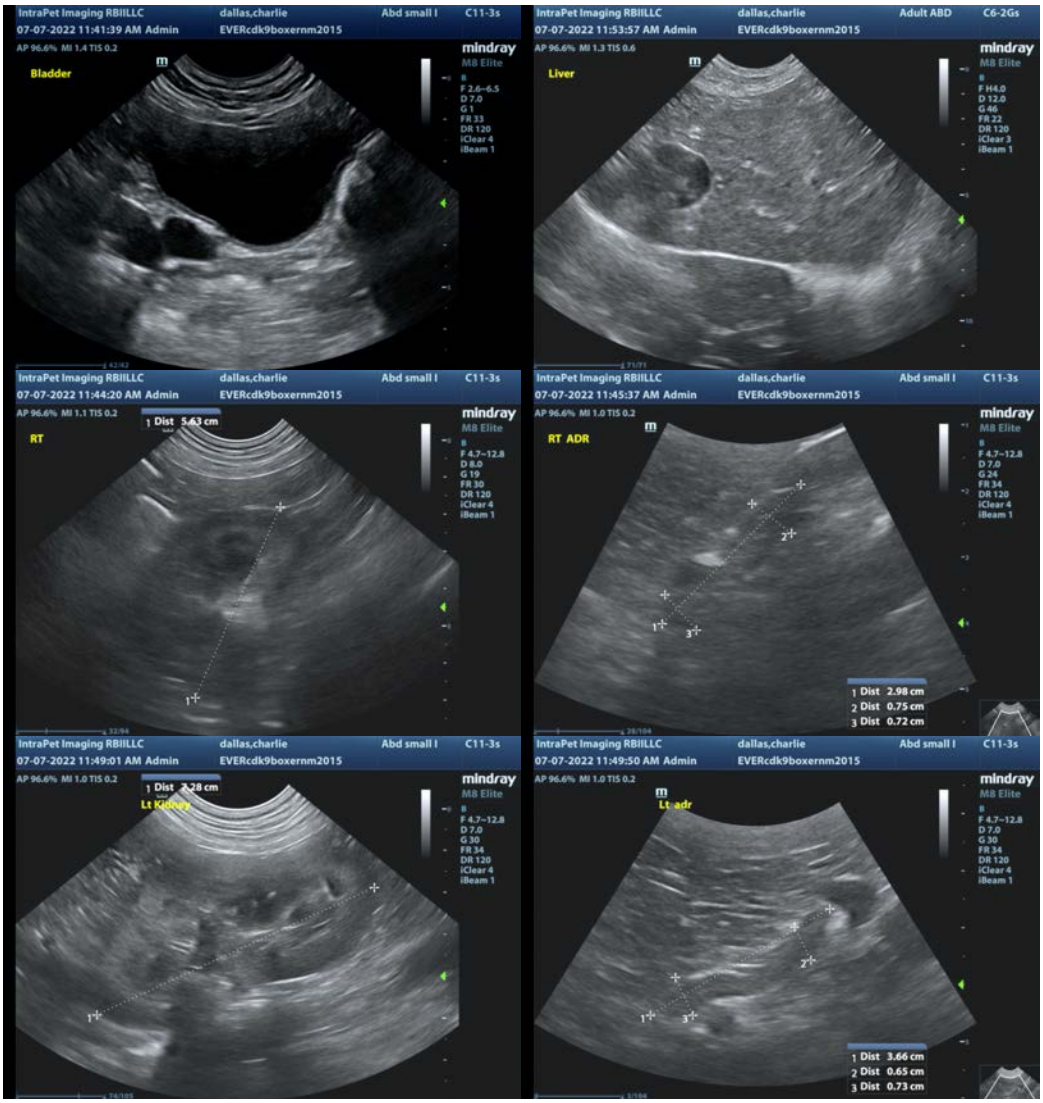
An obvious cause for the hematuria/pigmenturia is not observed. No obvious lesions are visible in the urinary bladder. Additionally, the prostate appears largely normal. Correlate this finding with a digital rectal exam, looking for any pain, discomfort, irregularity, etc.

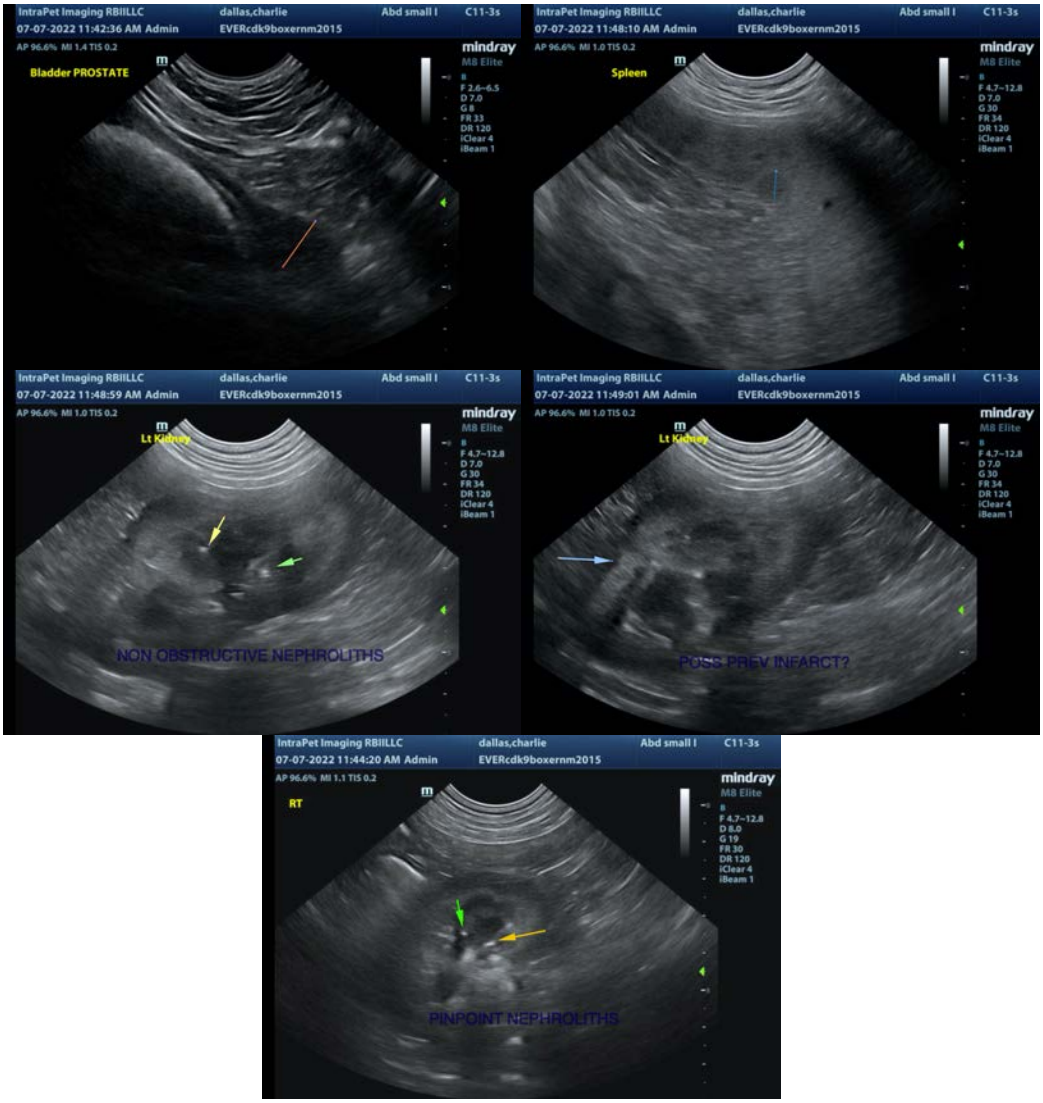
The changes in the kidneys are most consistent with chronic progressive changes. The left kidney is slightly irregular, likely due to previous infarct, and there are pinpoint non-obstructive nephroliths visualized. These findings are often considered incidental. There is no obvious pyelectasia or evidence of stones in the ureters, etc. Compare these results with radiographs, looking for any mineralizations that could have been missed.

Additionally, you could consider a contrast excretory urogram and cystourethrogram and/or contrast CT scan to look for small stones and lesions not visible on today's ultrasound.

The spleen subjectively appears mottled, and there is an ill-defined hypoechoic nodule. Consider a fine needle aspirate of the spleen.

Evidence of red blood cells in the urine with no infection or obvious lesion is an unusual problem. Consider spinning down a urine sample to see if the pigment clears, indicating true hematuria, or if it persists, which could indicate a degree of hemoglobinuria or myoglobinuria. Additionally, you could consider Leptospirosis testing. If the hematuria persists, you can additionally consider a cystoscopic exam, where a scope is passed up the urethra to evaluate for any lesions, examines the bladder wall for any subtle lesions, and additionally evaluates ureteral jets for any evidence of bleeding, which could be an indication of idiopathic renal hematuria. Typically, in idiopathic renal hematuria, the urine is red, but this could represent an atypical presentation.





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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