



**PATIENT PRESENTING CLINICAL SIGNS**

**Tiberious Royal** History: admitted to ER 4/25 4/25/2022 Diagnostic Results PCV: 43% TS: 7.2 g/dL CBC: unremarkable Chem: mild hyperglycemia, GLU 203 Lytes: hypokalemia (K 3.0) UA:SG >1.050, pH 7, 2+ blood, otherwise unremarkable (Mark Atkinson, DVM) 4/25/2022 Assessment FLUTD + urethral obstruction - mild hematuria - mild hypokalemia Stranguria was identified early and timely treatment initiated; labs are largely unremarkable (mild hypokalemia, no azotemia). Prognosis is considered fair with therapy but pt remains at risk for re-obstruction. Hospitalized on IVF and with urinary catheterization- recheck AUS was advised a month later- cat doing well- no stanguria, no hematuria- On special diet, NSAID and buprenex after sent home- Patient urinating appropriately, discharged from hospital a few days later.

**Feline** Recommend recheck ultrasound in 2-3 weeks to evaluate urinary bladder sediment, sooner with any concerns.

**BREED** Domestic Shorthair

**SEX** Abnormal PE/Chem/CBC/UA Results: SEDATED- Chem/CBC WNL

Neutered Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE** *Urinary System*

**4 Years** The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2.0 cm) appear normal with no evidence of wall thickening, mucosal irregularities or masses. There is a large amount of dependent hyperechoic shadowing mineralized debris in the dependent portion of the urinary bladder. This material suspends to create a large amount of echogenic debris floating in the urinary bladder. Findings are most consistent with a large amount of sandy echogenic debris and small stones. Some of the larger shadowing stones measure at 0.21 cm, 0.22 cm and 0.2 cm.

**WEIGHT**

7.8 kg

**INTERPRETED BY**

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

The left kidney has a normal shape and size (3.83 cm). 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. Rare pinpoint nonobstructive nephroliths were visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT

The right kidney has a normal shape and size (4.06 cm). 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. Rare pinpoint nonobstructive nephroliths were visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Fairgrounds AH

**Adrenal Glands**

The left adrenal gland is large in size measuring 0.71 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.

**REFERRING VET**

Dr. Johnson

The right adrenal gland is normal in size measuring 0.35 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.

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**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears

**DATE**

5/18/22



**PATIENT** normal. No focal parenchymal abnormalities are visualized. The spleen measured 0.95 cm in width at the level of the hilus.

Tiberious Royal

**Liver**

**SPECIES** 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 gall bladder 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.

Feline

**BREED**

Domestic Shorthair

**Gastrointestinal**

**SEX**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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.

Neutered Male

**AGE**

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 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

4 Years

**WEIGHT**

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.

7.8 kg

**INTERPRETED BY**

**Pancreas**

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

The (pancreas/region of 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.

**IMAGING PERFORMED BY**

**Free Abdomen**

Loetitia Saint-Jacques, RVT

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.

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**ULTRASONOGRAPHIC FINDINGS**

**REFERRING VET**

Dr. Johnson

- Dependent hyperechoic shadowing debris/small stones in the urinary bladder. The findings are consistent with small calculi and sandy debris. I recommend urinalysis and culture.
- Borderline enlarged left adrenal gland. Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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A large amount of sandy echogenic debris and small stones remain in the urinary bladder. Some of these may be small enough to be flushed out with a urinary catheter, but other may be too large.

**DATE**

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**PATIENT** Correlate with abdominal radiographs, urinalysis and culture.

Tiberious Royal Additionally, the left adrenal gland appears large. It is relatively normal in appearance (no irregularity, etc.). So, the significance of this is unclear. Consider blood pressure evaluation and given the hypokalemia reported, consider aldosterone levels and further monitoring/evaluation for a possible hyperaldosteronism. If there are no signs of Cushing's or elevated aldosterone levels, then I

**SPECIES** Feline I recommend continued monitoring for development of these signs or further enlargement of the adrenal gland.

**BREED**

Domestic Shorthair

**SEX**

Neutered Male

**AGE**

4 Years

**WEIGHT**

7.8 kg

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**HOSPITAL NAME**

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**REFERRING VET**

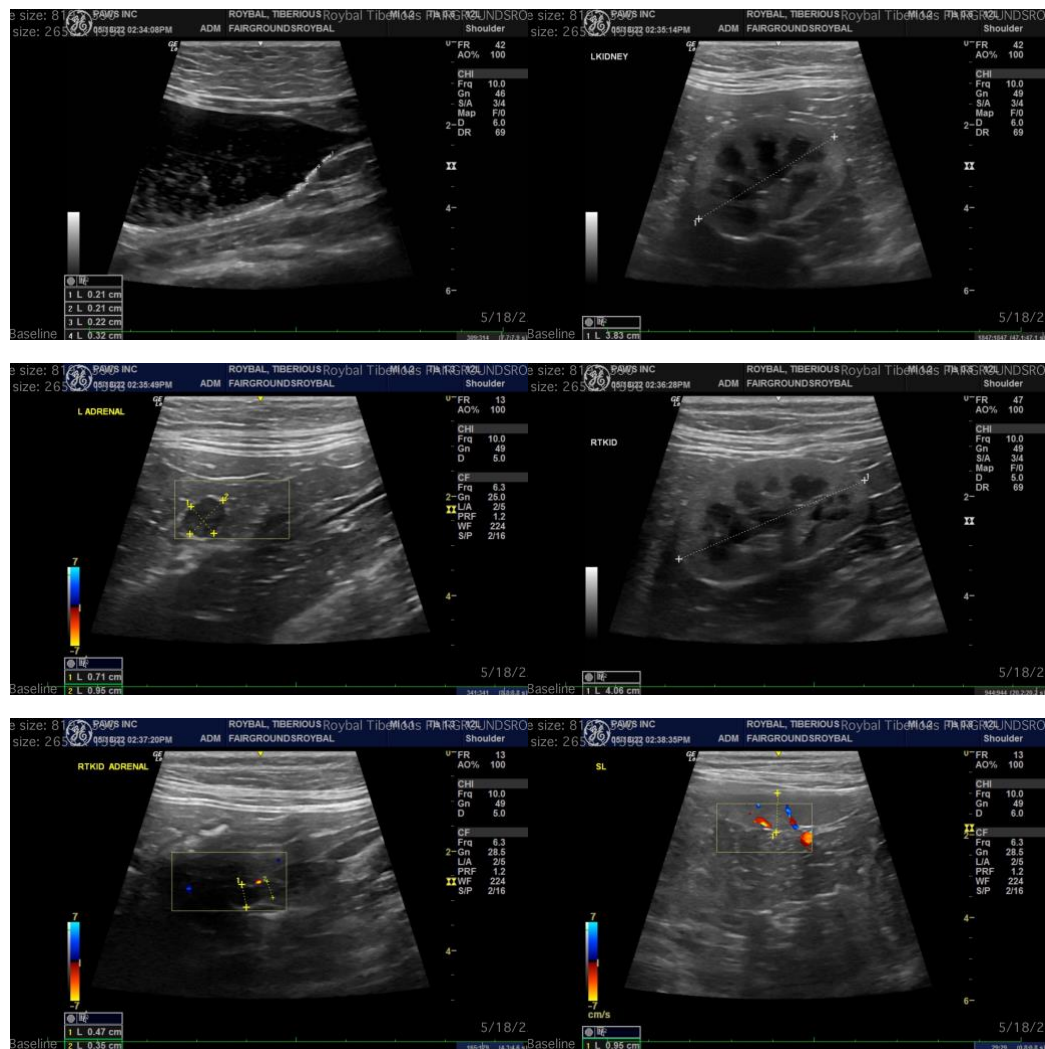
Dr. Johnson

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**PATIENT**

Tiberious Royal

**SPECIES**

Feline

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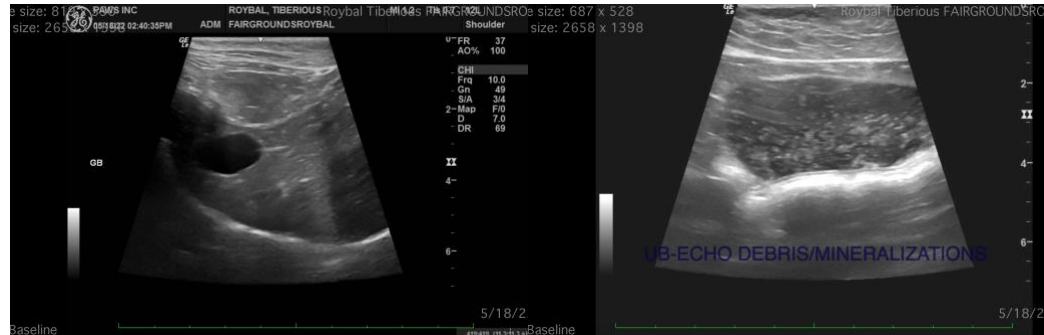
Dr. Johnson

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The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

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

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