



**PATIENT PRESENTING CLINICAL SIGNS**

Fritz Preston

History: Presented for anorexia and decreased urination since Sunday (6/5/2022). Fritz does go outside so suspect he is urinating some while outside. No stranguria. Vomiting once on 6/5.  
Abnormal PE/Chem/CBC/UA Results: USG 1.011, 1+ rods and rare cocci confirmed on dry mount; CREA = 12.3 mg/dL 0.8 - 2.4; BUN = 125 mg/dL 16 - 36; Potassium = 6.4 mmol/L 3.5 - 5.8 ; Chloride = 108 mmol/L 112 - 129; PCV 22 % 24 - 42 (CBC not available)

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

12 years

**WEIGHT**

9.9 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Woodside

**HOSPITAL NAME**

Sherwood Family Pet  
Clinic

**REFERRING VET**

Dr. Rudie

**INVOICE**

30875

**DATE**

6/7/22

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is not able to be fully visualized because it is almost completely empty. However, there is no evidence of pathology, mineral, etc. noted in these images.

Left kidney appears a very thin, very hyperechoic rim of renal cortex surrounding a markedly fluid dilated renal pelvis/collecting system. There are bands of hyperechoic tissue extending from the capsule towards the hilus. This is consistent with hydronephrotic kidney.

What is visible in the area of the right kidney appears as a small, hyperechoic structure with minimal, normal renal architecture visible and measures 2.9 cm.

**Adrenal Glands**

Left adrenal gland is a plump, egg shaped adrenal measuring 0.85 cm thick and hypoechoic in echogenicity.

Right adrenal gland is unable to be visualized in these images.

**Spleen**

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively normal in size. Margins are sharp and smooth. It has normal homogenous echotexture and normal echogenicity. No focal lesions are observed. Visible vasculature appears normal. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation.

**Gastrointestinal**

The stomach and gastrointestinal tract are difficult to fully visualize due to gas artifact; however, no overt pathology is appreciated. No free fluid is present in the available images.



**PATIENT**

**Pancreas**

Fritz Preston

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

**SPECIES**

Feline

**Free Abdomen**

Lymph nodes are normal with no observed enlargement. The left cranial abdomen surrounding the left hydronephrotic kidney contains markedly enhanced, hyperechoic, peri-nephric tissue/fat/mesentery.

**BREED**

Domestic Shorthair

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

**Primary Findings**

Neutered male

Hydronephrosis of the left kidney with concern for peri-nephric inflammation that is characterized by the enhanced tissue surrounding the kidney.

**AGE**

12 years

Small, abnormal right kidney. This finding is consistent with an acute on chronic kidney disease, possibly brought on by the reported urinary tract infection and secondary pyelonephritis versus toxic insult versus other. Given the degree of the left kidney dilation/hydronephrosis an obstruction secondary to a passing ureterolith not well visualized in these images or a strictured ureter, etc. is also considered possible.

**WEIGHT**

9.9 kg

**Secondary Findings**

Enlarged, left adrenal likely benign age related change potentially caused by chronic stress/disease in this case possibly due to chronic renal disease.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommendations for this patient include:

1. Urine culture is recommended given the reported bacteruria and marked renal pelvis dilation in the left kidney. Given the concern for possible ureteral obstruction via stone, stricture, or other an abdominal CT scan with contrast can be considered for further identification of a possible obstruction.
2. In the meantime, aggressive diuresis, broad-spectrum antibiotics, and medical support of the gastrointestinal signs with anti-emetics, gastroprotectants, etc. is recommended with close monitoring of the azotemia for improvement as well as monitoring of the left kidney for improvement in appearance.
3. There is no visible evidence in these images of a lower urinary tract obstruction and no urinary bladder distension to support that.

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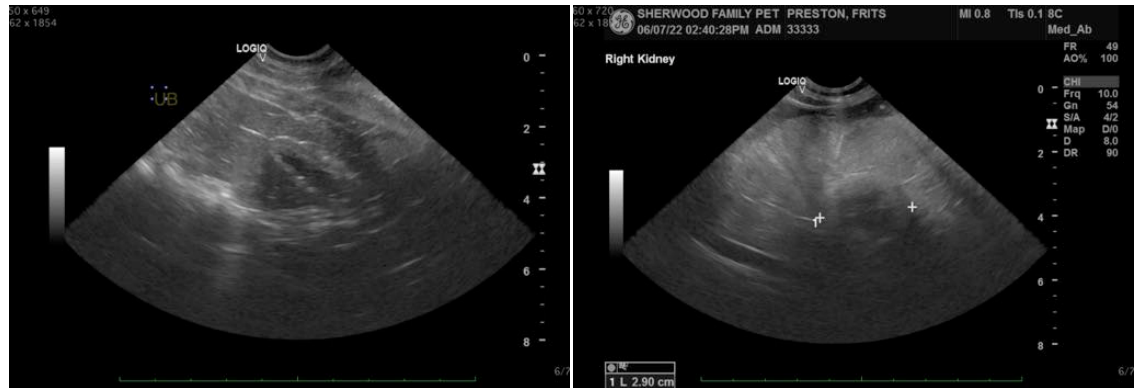
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

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