



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Boots McCarthy	Uncontrolled diabetes ,partial urinary blockage
<b>SPECIES</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
Feline	<b>Urinary System</b>
<b>BREED</b>	Urinary bladder is overdistended consistent with the reported history of partial urinary blockage. It has normal uniform wall thickness (< 0.2 cm). No masses or cystoliths are observed.
Domestic Shorthair	
<b>SEX</b>	Left kidney is normal in size (4.18 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. Non-obstructive areas of mineralization/nephroliths are noted, primarily in the diverticular of the kidney. There is no evidence of pyelectasia or infarcts observed.
Neutered male	
<b>AGE</b>	Right kidney is normal in size (4.84 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. Renal pelvis is dilated (pyelectasia), measuring (0.5 cm). No visible obstruction is observed, but cannot be ruled out. There is no evidence of mineral or infarcts observed.
14 years	
<b>WEIGHT</b>	
9.6 lbs	
<b>INTERPRETED BY</b>	<b>Adrenal Glands</b>
Beth Johnson, DVM DACVIM	The left adrenal gland is uniformly plump egg-shaped and hypoechoic in echogenicity. The left adrenal gland measures 0.5 cm thick.
	The region of the right adrenal gland was evaluated without evidence of pathology. The right adrenal gland was not visualized for discrete measurements.
<b>IMAGING PERFORMED BY</b>	<b>Spleen</b>
Jenn	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.
<b>HOSPITAL NAME</b>	
Rockaway AH	
<b>REFERRING VET</b>	<b>Liver</b>
Dr. Maniar	Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. A mildly tortuous cystic and common bile duct is consistent with normal finding in a senior cat.
<b>INVOICE</b>	
96062	
<b>DATE</b>	
2/15/22	



**PATIENT**

**Gastrointestinal**

Boots McCarthy

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach is empty.

**SPECIES**

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Feline

Colon is normal in wall thickness (< 0.2 cm) and layering.

**BREED**

Domestic Shorthair

**Pancreas**

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

**SEX**

Neutered male

**Free Abdomen**

Lymph nodes are normal with no observed enlargement.

**AGE**

14 years

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

9.6 lbs

**Primary Findings**

- Age related kidney change – This finding is expected/consistent with age-related mild degenerative disease and should be interpreted clinically in combination with laboratory changes.
- Non-obstructive nephrolithiasis in the left kidney.
- Pyelectasia in the right kidney– Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Age related adrenomegaly – likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended. However, given the reported historically poorly regulated diabetes testing for other hormone abnormalities that can interfere with diabetes management such as hyperadrenocorticism, etc. may be indicated if any other clinical signs of hormone abnormalities are present.
- Hyperechoic hepatomegaly– consistent with benign hepatic lipodosis. Infiltrative disease such as amyloidosis or neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- Likely age related tortuous cystic and common bile duct.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommendations for this patient include CBC, serum chemistry panel, electrolytes and urinalysis if not recently evaluated. Given the reported urinary obstruction a urine culture is also recommended if indicated based on urinalysis results. There is no evidence of mineral/mass/obstructive cause in the urinary bladder in these images. However, the over distended urinary bladder and mild pyelectasia on the right are both consistent with the reported partially urinary obstruction. Recommendations include



**PATIENT**

Boots McCarthy

passing a urinary catheter to help dislodge a mucous plug or some other debris resulting in the obstruction beyond where the ultrasound captures. If there are any indications of cholangitis and/or increased liver enzymes a FNA of the liver is recommended if the patient's coagulation status is appropriate and medical management can be instituted for cholangitis given the slightly tortuous biliary tree if laboratory values indicate that this is pathologic finding versus normal age variant.

**SPECIES**

Feline

Given the reported poorly regulated diabetes and left adrenomegaly recommendations include trying to obtain an image of the right adrenal gland if possible followed by additional hormone testing if indicated based on patient's clinical signs. However, age related adrenomegaly is probable.

**BREED**

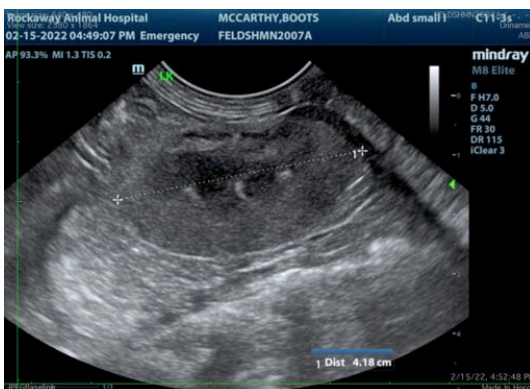
Domestic Shorthair

**SEX**

Neutered male

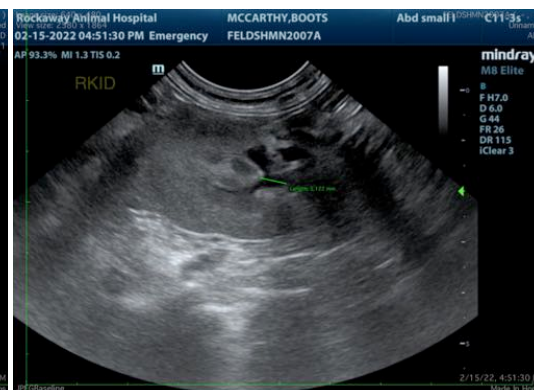
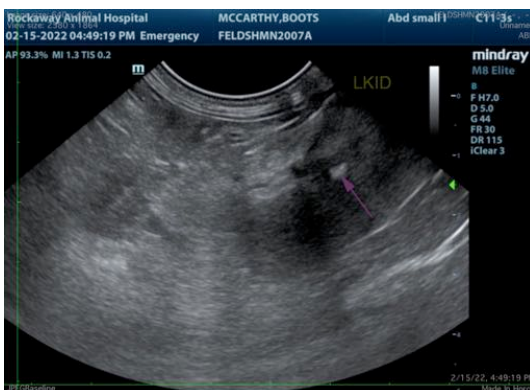
**AGE**

14 years



**WEIGHT**

9.6 lbs



**INTERPRETED BY**

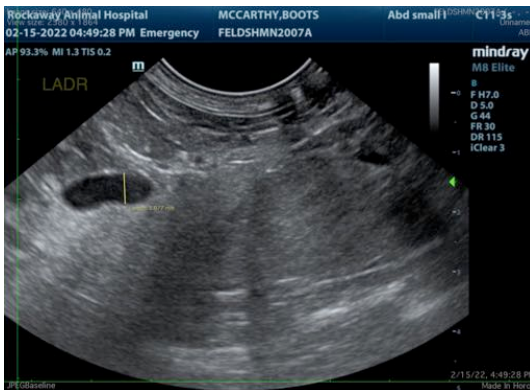
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**IMAGING PERFORMED BY**

Jenn

**HOSPITAL NAME**

Rockaway AH



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**PATIENT**

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**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Neutered male

**AGE**

14 years

**WEIGHT**

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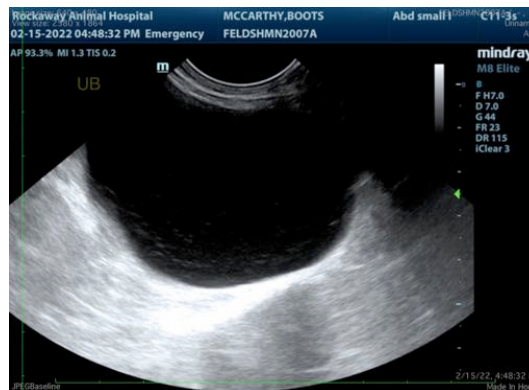
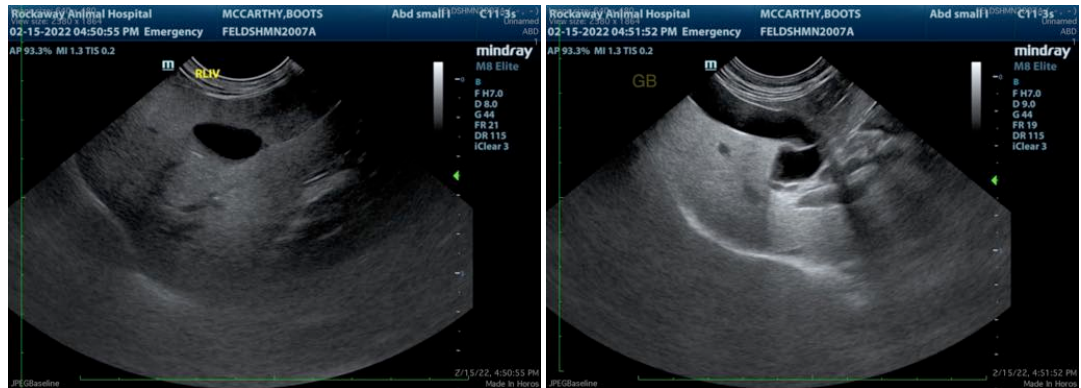
Dr. Maniar

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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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