

**PATIENT PRESENTING CLINICAL SIGNS**

**Blue Miera**  
Blue was diagnosed with diabetes mellitus March 2023 (first visit seeing us). He had presented for wellness exam & concern for vision loss. On exam, P was thin with unkempt matted haircoat, third eyelid elevation, pale mucous membranes and significant dental disease, generalized muscle atrophy, & otitis externa. Recommend screening labwork which showed hyperglycemia and glucosuria, confirmed diabetes with fructosamine. O does not report vomiting/diarrhea. His appetite is OK - he will eat his dry food most of the time, prefers to lick gravy out of wet food. He weighed 10.1 lbs in March, now is 8.92 lbs (slow decrease every visit). He has presented with tacky mucous membranes the last 2 visits. MEDS: Prozac 2 U BID; Rx diabetic diet (Purina DM); Buprenorphine TD PRN Working diagnosis Looking for cause of continued weight loss and unregulated diabetes

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

1/6/06

**WEIGHT**

4.05 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques,  
LVT

**HOSPITAL NAME**

Advanced PetCare of  
Nevada

**REFERRING VET**

Dr. Alexis Hazelwood

**INVOICE**

44615

**DATE**

8/2/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are bilaterally uniformly enlarged/swollen with an overall hyperechoic echogenicity and slight loss of corticomedullary definition. Normal smooth peripheral margination and shape are maintained. The renal pelvis are dilated with anechoic fluid and hyperechoic thickened pelvic fat. No overt evidence of neoplasia or mineral is observed. The perinephric area is enhanced by hyperechoic fat and mesentery. The left kidney measures 4.59 cm. The right kidney measures 4.3 cm. In the left kidney pyelectasia measures 0.82 cm in the transverse view, and in the right kidney it measures 0.58 cm in the transverse view.

**Adrenal Glands**

The area of both adrenal glands is examined without evident adrenal gland pathology.

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.


**PATIENT**

Blue Miera

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

***Gastrointestinal***
**SPECIES**

Feline

The gastric wall along the lesser curvature of the body/fundus contains a 2.3 cm long x 0.60 cm thick heterogeneous, hypoechoic lesion/mass with complete loss of mural detail. The remainder of the gastric wall is normal. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease.

**BREED**

DSH

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

**SEX**

Neutered Male

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

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***Pancreas***

Pancreas is prominent in size with swollen irregular contour. Parenchyma is heterogenous characterized by hyperechoic tissue remodeling intermixed with ill-defined hypoechoic nodules. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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***Free Abdomen***
**INTERPRETED BY**

 Beth Johnson, DVM  
 DACVIM

There is no evidence of free peritoneal effusion noted in these images.

The mesenteric and pancreaticoduodenal lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

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**ULTRASONOGRAPHIC FINDINGS**

- Gastric mass – The mass has characteristics of malignancy characterized by loss of layering. Therefore, lymphoma, carcinoma versus other should be considered. Having said that, benign inflammatory, parasitic, infectious, other lesions are possible and cannot be ruled out without tissue sampling.
- Pyelonephritis – These changes are most consistent with chronic pyelonephritis. Chronic scarring and fibrosis and/or chronic nephrolith passage can also result in these pelvic dilation changes. Early infiltrative disease cannot be ruled out but is considered less likely.
- Reactive mesenteric and pancreaticoduodenal lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Pancreatic nodular hyperplasia – Infiltrative neoplasia cannot be ruled out but is considered less likely.
- Urinary bladder debris

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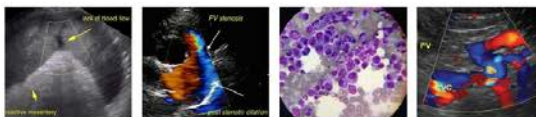
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

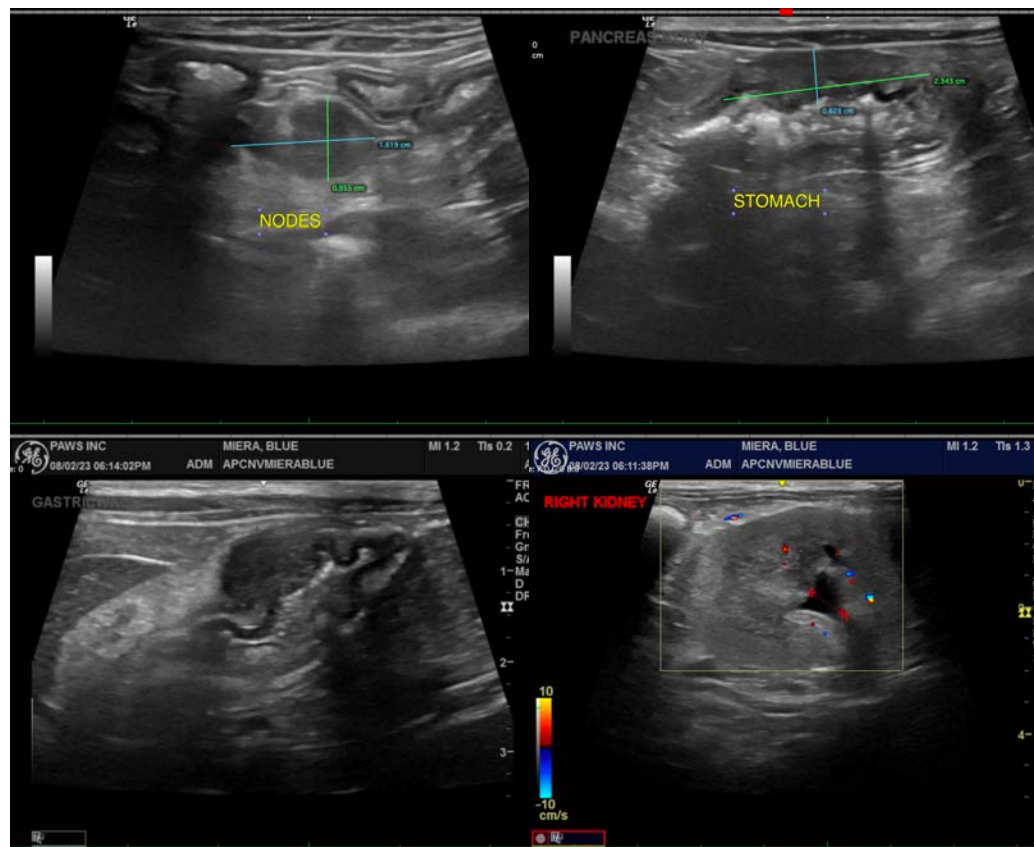
A recheck urinalysis, and, if indicated based on urinalysis results, a urine culture could be considered, given the marked pyelectasia. Having said that, given the reportedly recently negative urine culture, the pyelectasia could be secondary to PU/PD brought on by the diabetes versus other. Direct sampling of the renal pelvis (i.e., pyelocentesis) could be considered if pyelonephritis is suspected but repeat cystocentesis urine cultures are negative.

A fine needle aspirate of the gastric wall/mas is recommended if patient's coagulation status is appropriate. If a diagnosis cannot be obtained cytologically, upper GI gastroscopy could be considered for further visual evaluation and biopsies or even an exploratory laparotomy for planned excisional biopsy could be considered.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

In the meantime, placement of a freestyle libre sensor could be considered to help better regulate the diabetes. Additionally, empirical deworming with a 5-day course of Panacur is recommended, as is empirical therapy for possible gastritis, including antiemetics, gastroprotectants, as well as an appetite stimulant if indicated.

A heart base image was provided, but interpretation was declined.





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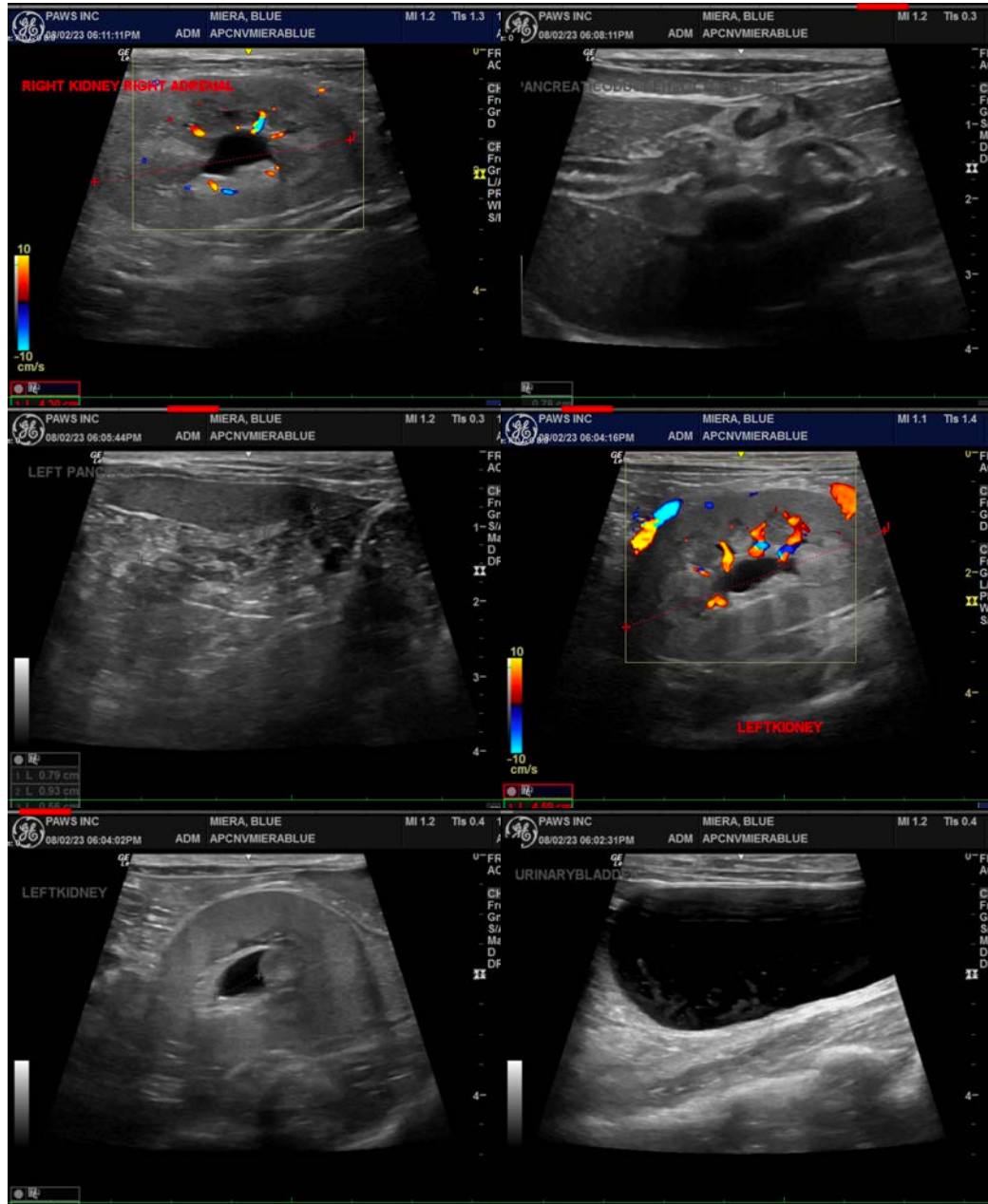
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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