

**PATIENT PRESENTING CLINICAL SIGNS**

Boo Ramirez  
On & off mucopurulent vaginal discharge. R/O Pyometra Current Meds: Orbax 22.7 mg 1/2 SID  
Abnormal PE/Chem/CBC/UA Results: Pending

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Female

**AGE**

10 Years

**WEIGHT**

12.9

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Carlos Abdul-Chani

**HOSPITAL NAME**

Byram Animal Hospital

**REFERRING VET**

Dr. Cruz

**INVOICE**

44852

**DATE**

8/23/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (4.38 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Trace pyelectasia is noted.

The left kidney is normal in size (3.97 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Trace pyelectasia is noted.

**Adrenal Glands**

The right adrenal gland is normal in size (0.48 cm at the cranial pole and 0.41 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.55 cm at the cranial pole and 0.41 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**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.

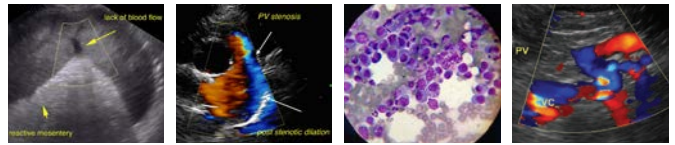
**Liver**

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.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta.



**PATIENT**

There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

Boo Ramirez

**SPECIES**

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.

Canine

**BREED**

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

Pug

**Pancreas**

**SEX**

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Female

**AGE**

**Free Abdomen**

10 Years

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

**WEIGHT**

The medial iliac 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.

12.9

The left ovary is visible and contains an anechoic structure. The right ovary is unable to be well visualized in these images. The uterus is mildly subjectively irregular and mildly thick, but not fluid distended.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**ULTRASONOGRAPHIC FINDINGS**

- **Trace bilateral pyelectasia** – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- **Moderate gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- The ovarian and uterine changes should be interpreted in combination with patient's last heat cycle, etc. However, endometrial hyperplasia, endometritis, mucometra, or mild or emerging open pyometra, which is not resulting in dilation due to the open status, etc. are all differentials.

**IMAGING PERFORMED BY**

Dr. Carlos Abdul-Chani

**HOSPITAL NAME**

Byram Animal Hospital

**REFERRING VET**

Dr. Cruz

**INVOICE**

44852

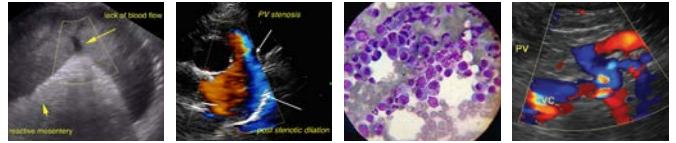
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

As is reportedly already pending, a general metabolic health screen is recommended to include a CBC/Chem panel and electrolytes.

**DATE**

8/23/23

Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.



**PATIENT**

Pending results, given the patient's presenting complaint, even though this is not an obvious distended/closed pyometra resulting in emergency surgery, an ovariectomy is recommended, is possible.

Boo Ramirez

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Female

**AGE**

10 Years

**WEIGHT**

12.9

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Carlos Abdul-Chani

**HOSPITAL NAME**

Byram Animal Hospital

**REFERRING VET**

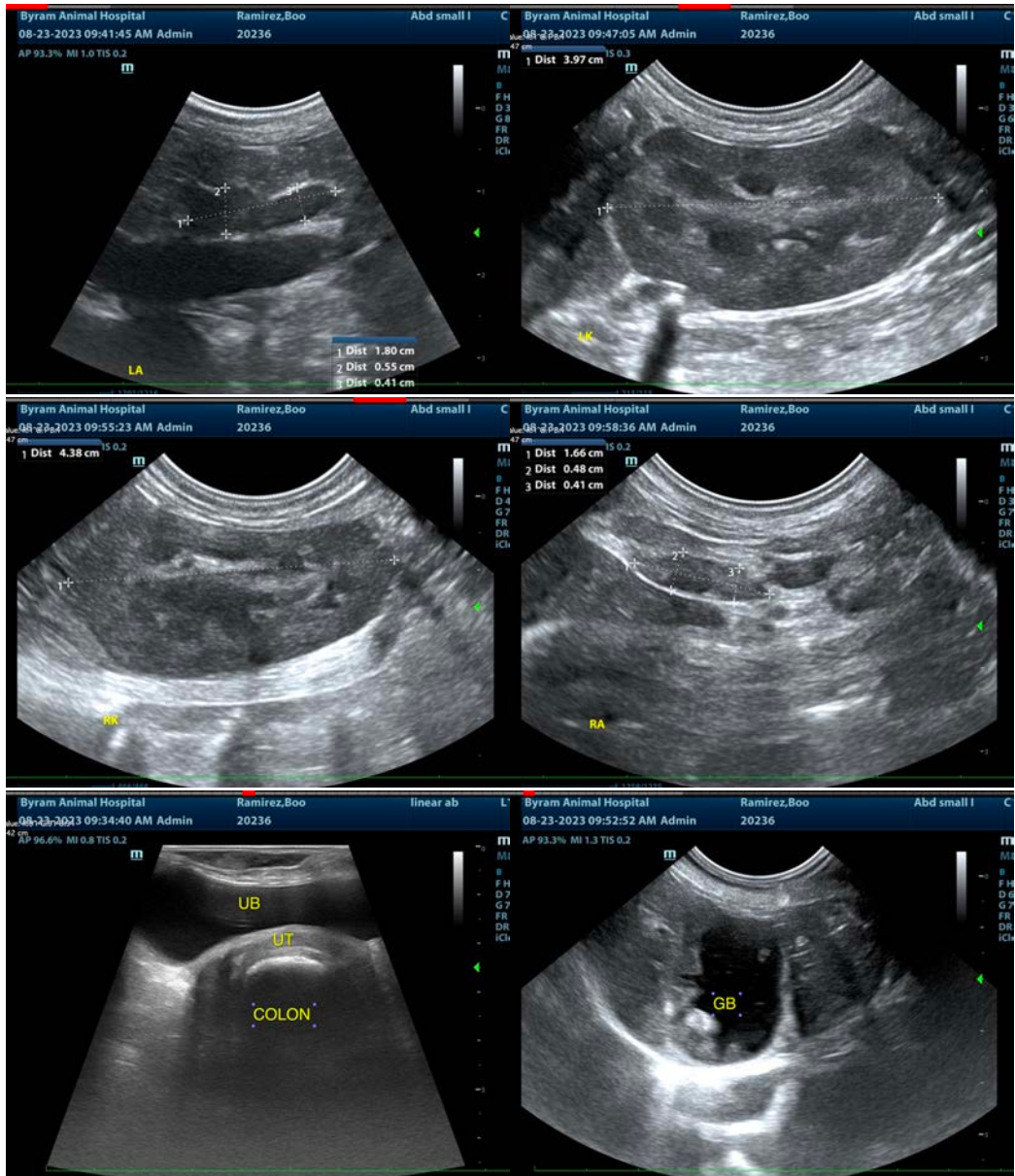
Dr. Cruz

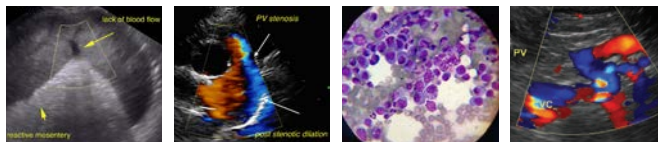
**INVOICE**

44852

**DATE**

8/23/23





**PATIENT**

Boo Ramirez

**SPECIES**

Canine

**BREED**

Pug

**SEX**

Female

**AGE**

10 Years

**WEIGHT**

12.9

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Carlos Abdul-Chani

**HOSPITAL NAME**

Byram Animal Hospital

**REFERRING VET**

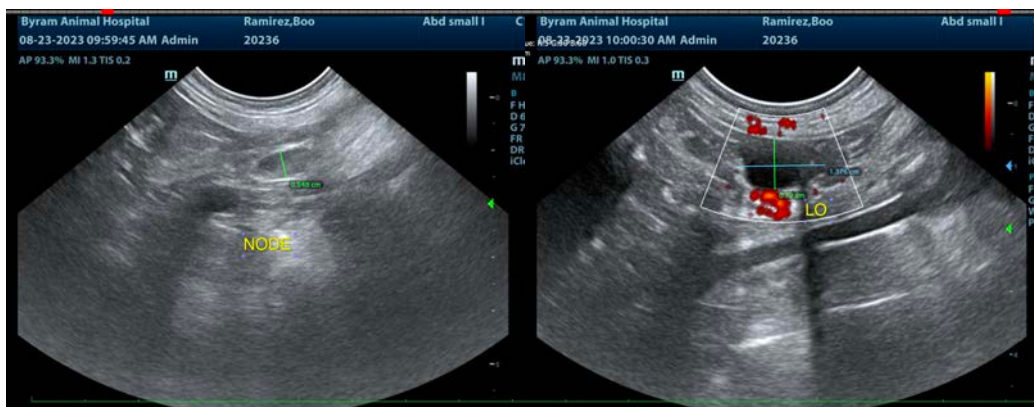
Dr. Cruz

**INVOICE**

44852

**DATE**

8/23/23



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**  
info@sonopath.com