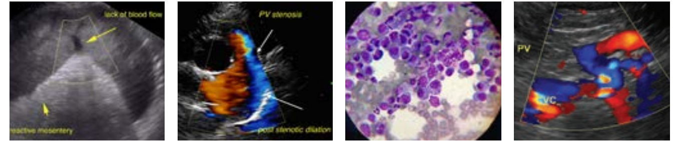

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PATIENT

Bill Humane Society

SPECIES

Canine

BREED

Pit Bull

SEX

Neutered Male

AGE

10 Years

WEIGHT

28.2 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Erin Wicks

HOSPITAL NAME

Shores VEC

REFERRING VET

Dr. Lupole

INVOICE

43136

DATE

12/2/22

PRESENTING CLINICAL SIGNS

Presented at our hospital for AUS. Foster noticed a change in activity level, distended belly, some muscle loss, about 2-3 weeks ago. UR and BM have seemed to increase over the last couple of weeks. Took to HS and ran blood and rads, lack of detail, possible mass effect, rec AUS. Previous Health Concerns: UTI, Mast cell on scrotum and several MCT removed over the years. All removed with clean margins. Current Medications: Baytril, apoquel, zyrtec

Abnormal PE/Chem/CBC/UA Results: Rdvm bloodwork: HCT 34.4; Hemoglob 10.9; MCH 19.2; MCHC 31.7; Retic Hemo 18.3; WBC 18.3; NEU 15.6; ALB 2.6; AMY 1697; LIP 436; CreaKin 252 Rdvm rads: of the Abdomen showed he has an abdominal mass of either the spleen or liver. Bloodwork is consistent with splenic mass. Possible UTI per urinalysis.

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 prostate is symmetrically enlarged, measuring 3.0 cm wide, with a heterogeneous appearance and multiple cystic/cavitated areas.

The right kidney is normal in size (8.16 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 pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.84 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 pyelectasia, mineral or infarcts observed.

Adrenal Glands

The adrenal glands are not definitively visualized in these images.

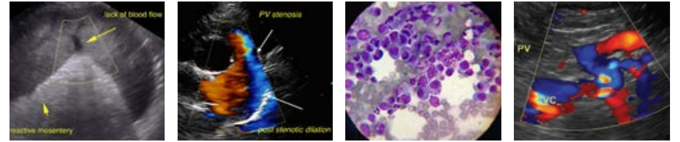
Spleen

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. **See other.

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. **See other.

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.



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Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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.

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

Pancreas

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.

Free Abdomen

In the cranial abdomen, there is a large, heterogeneous, cavitated mass surrounded by free abdominal fluid and enhanced hyperechoic mesenteric fat. The mass appears to originate from the liver. However, liver versus splenic origin cannot be definitively identified.

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.

ULTRASONOGRAPHIC FINDINGS

- Cavitated cranial abdominal mass surrounded by free fluid that appears to be hepatic in origin. However, splenic origin cannot be definitively ruled out - Top differential includes infiltrative neoplasia such as sarcoma. However, given this patient's history of mast cell tumor, metastatic mast cell tumor is also possible. A benign lesion is possible but considered exceedingly less likely.

- **Cystic prostatomegaly** – Differentials include both benign bacterial prostatitis versus infiltrative neoplasia (considered less likely).

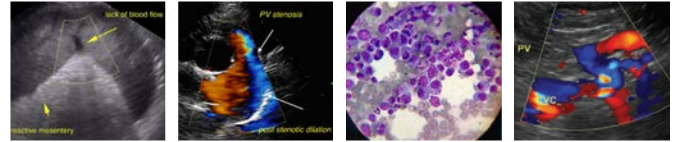
- **Reactive medial iliac lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

A urine culture is recommended, given the reported suspicion of a urinary tract infection. If positive, treatment with an antibiotic that has good prostate penetration is recommended, given the concern for concurrent bacterial prostatitis. Treatment should be long enough to treat concurrent prostatitis, and the treatment course should include final follow up culture a week to 10 days after finishing antibiotics to ensure full clearance.

Submission of urine to look for BRAF gene mutation, which is associated with urinary bladder and/or prostatic cancer/carcinoma, could be considered, or other diagnostic options include traumatic



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catheterization or even fine needle aspirate of the prostate with small risk of tumor seeding/trailing to definitively rule out prostatic neoplasia.

More importantly, however, is addressing the cranial abdominal mass, beginning with sampling of the free abdominal fluid to help determine whether this patient has hemoabdomen, which is suspected, followed by an exploratory laparotomy for mass removal. Resectability is difficult to comment on, so if surgery is elected, a pre-surgical planning abdominal CT scan may be helpful.

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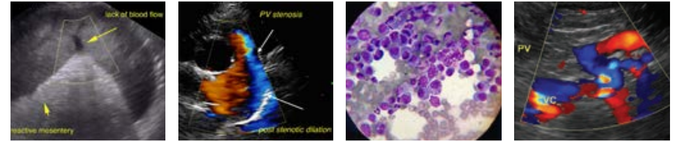

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Beth.Johnson@sonopath.com