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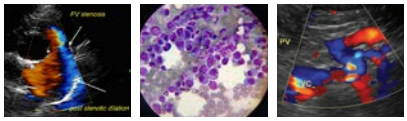
IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

12/20/22

PATIENT

Max Piorunski

SPECIES

Canine

BREED

Mix

SEX

Neutered Male

AGE

11/1/11

WEIGHT

87.8 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Festival Vet Clinic

REFERRING VET

Dr. Greenfield

INVOICE

43585

PRESENTING CLINICAL SIGNS

11/25/22: Mass on left front leg, has been there since he was a puppy, is now ulcerated and P is chewing at it. FNA INTERPRETATION: Recent hemorrhage with protein, mild mixed inflammation, and spindle cell proliferation. Pre-anesthetic BW showed elevated ALP, ALT, GGT.

Current Medications: Cephalexin 1000mg BID
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Patient sedated with Torbugesic.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with primarily anechoic contents. There is a solitary, heterogeneous, hyperechoic, vascular mass lesion at the apex of the bladder that measures 4.5 cm long at the base and extends approximately 2.0 cm into the lumen of the bladder. No cystoliths are observed.

The area of the prostate is examined without evident pathology.

The right kidney is normal in size (7.86 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 (7.72 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 right adrenal gland is normal in size (3.43 cm long x 1.0 cm at the cranial pole and 1.16 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is enlarged (4.76 cm long x 2.65 cm at the cranial pole and 2.34 cm at the caudal pole) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion.

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

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is markedly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

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

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. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent. There is a 2.0 cm x 2.5 cm discrete, hypoechoic foci within the lumen of the stomach that does not appear to be vascular.

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

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

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Left adrenal mass –** consistent with adenoma or possibly hyperplasia. Early pheochromocytoma or even adenocarcinoma cannot be ruled out. Interpret in combination with clinical signs of hyperadrenocorticism or other adrenal disease.

- **Heterogenous Liver –** These changes can be seen with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease, etc. However, the change in this patient is marked, and infiltrative round cell or metastatic neoplasia should also be considered.

- **Urinary bladder mass –** Concerning for infiltrative neoplasia, such as transitional cell carcinoma. However, the location is slightly atypical, and a benign inflammatory cystitis or benign polyp is also possible. Given the location of the mass, it appears resectable.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The avascular density within the gastric lumen could represent atypical appearing ingesta or a foreign body. However, a nodule/polyp/mass cannot be ruled out.

This patient has multifocal pathology that is likely not all related to the same underlying diagnosis. To begin with, a urinalysis and urine culture, if indicated based on urinalysis results, are recommended. Submission of urine to look for BRAF gene mutation, which is associated with urinary bladder cancer, could be considered. Other diagnostic options include traumatic catheterization, fine needle aspirate (with small risk of tumor seeding/trailing) or cystoscopy for further sampling.

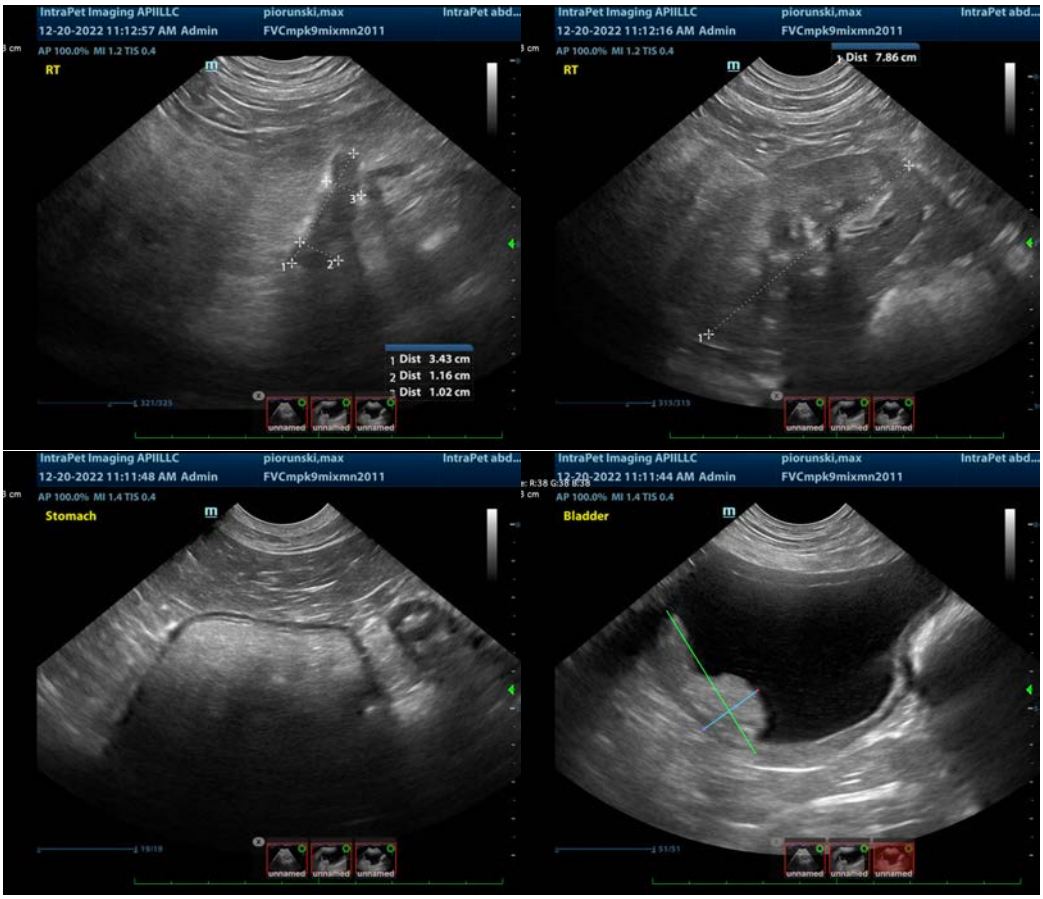
A fine needle aspirate of the liver is recommended if patients coagulation status is appropriate.

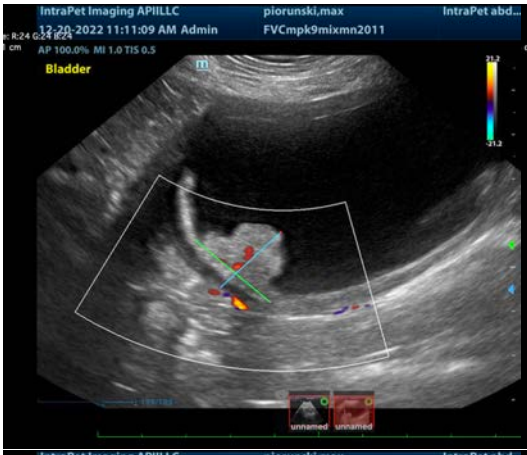
Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

If patient has clinical signs of hyperadrenocorticism, further investigation of the left adrenal mass could include a low-dose Dexamethasone suppression test. Ultimately, a left adrenalectomy will likely be the recommended treatment, in which case a pre-surgical planning abdominal CT scan, especially given the multifocal pathology, could be considered.

In the meantime, fasting for another 12-24 hours and rechecking the gastric lumen density is recommended to help better differentiate ingesta foreign body versus tissue. If the lesion in the stomach is determined to be tissue, a fine needle aspirate of that could also be considered if coagulation status is appropriate.

While aggressive in nature, given this patient's planned surgery for mass removal, abdominal surgery for an explore of the stomach, a left adrenalectomy, and bladder mass removal as well as liver biopsy could all be considered at the same time, if patient is stable to undergo such a long and invasive surgery.

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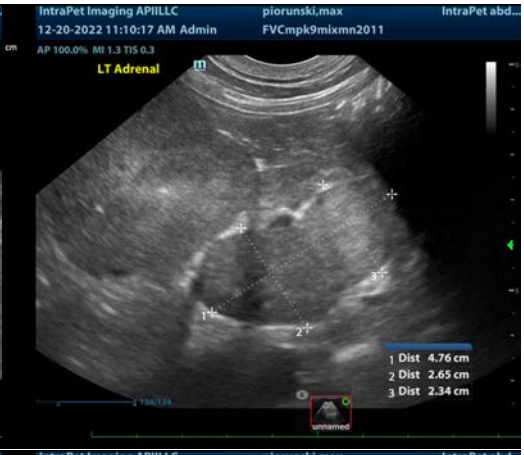
Bladder
unnamed
unnamed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LT Adrenal
1 Dist 4.76 cm
2 Dist 2.65 cm
3 Dist 2.34 cm
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1 Dist 7.72 cm
LT
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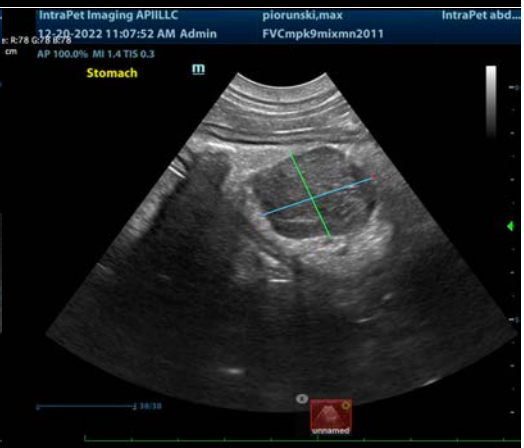
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AP 100.0% MI 1.4 TIS 0.3
Stomach
unnamed


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AP 100.0% MI 0.9 TIS 0.5
Stomach


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Stomach

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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