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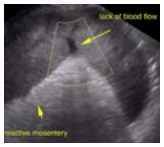
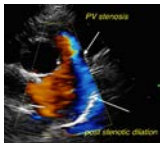
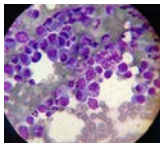
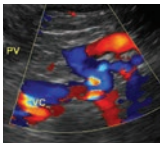

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1-800-838-4268 info@sonopath.com

PATIENT

Negrita Melendez

SPECIES

Canine

BREED

Rottweiler

SEX

Spayed Female

AGE

13 Years

WEIGHT

66 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Gabriel Ferrer

HOSPITAL NAME

Pulse: Pet Ultrasound Services

REFERRING VET

Dr. Mayra Fonseca

INVOICE

44443

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7/28/23

PRESENTING CLINICAL SIGNS

Negrita is a 13y/o F/S Rottweiler that presented to the emergency clinic on 7/24 with complaint of lethargy, anorexia, vomiting for 2 days. ---Previous hx - 10/2022 - removed ungual mass from digit 3, LH limb. Not biopsied then. 12/2022 - came in for pain in area of previous surgery, wound not healing. rads of LH paw show LH 3rd metatarsus in place. 6/26/2023- taken to otherh vet - rads taken again - LH 3rd metatarsul totally gone/lysed. hips unremarkable. labs then mild non reg anemia, chem creat 1.6, bun 24. globulins 5.4. (not sure what complaint was then). -------- 7/24/2023 - came back here for 2 days vomiting, lethargy/anorexia as stated above. has had cbc,chem, UA, thoracic radiographs (2 view), abdominal radiographs (2 views). BP 110mmHg chem - creat 5.5, bun 74. CBC mild non reg anemia UA - sg 1.010, , pH 5.0, bld 250. clear , trace protein. otherwise unremarkable. Culture not done. Rads - opacity noted ventral chest, left side. (neoplasia? aspiration less likely). Abdomen - kidneys appear on small end? Treated for CRF with fluids, unasyn, cerenia, protonix - vomits stopped, initially ate well, but since 7/26 anorexic again. very painful still . noted large mammary mass right caudal most mammary gland. 7/26 - Creat 4.6, bun 63, rest unremarkable. 7/28 - creat 4.3, bun 53. Abd US authorized and done today 7/28 - problems azotemia isosthenuria hyperphosphatemia anorexia vomiting hx of ungual mass removal (10/22). lytic metatarsal 3 LH - it's gone from 12/22 to now! pulmonary infiltrates - aspiration vs. neoplasia? mammary mass right caudal most gland r/o CRF digit 3 LH mass - concerns wtih malignant neoplasia removed, Concerns with metastasis Plan 1. for now continue treating as previously wtih fluids 2 x maint, unasyn 22mg/kg iv tid, cerenia 1mg/kg iv sid, protonix 1mg/gk iv sid. 2. cotninue mirtazapine 15mg po sid 3. add entyce - if not in stock script out. 4. add gabapentin for pain 300mg 1 cap po tid PRN grave px.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.64 cm thick). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. No mineral is observed. The left kidney measures 6.86 cm. The right kidney measures 5.92 cm. Pyelectasia is noted in the right kidney measuring 0.79 cm in the transverse view.

Adrenal Glands

The adrenal glands are enlarged with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion. The left adrenal gland measures 0.68 cm at the cranial pole and 0.92 cm at the caudal pole with concern for phrenicoabdominal vein invasion. The right adrenal gland measures 1.4 cm at the cranial pole and 1.3 cm at the caudal pole with concurrent suspect vascular invasion versus a thrombus. **See other.

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). A 1.6 cm x 2.8 cm hypo- to anechoic non-capsule disrupting nodule/mass is noted near the head of the spleen. Splenic vasculature appears normal.

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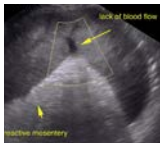
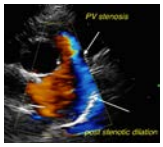
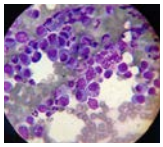
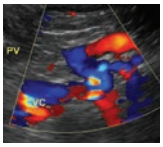

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Liver

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.

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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with fluid, as well as echogenic nonshadowing luminal contents and gas consistent with normal ingesta/chyme. There is 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

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

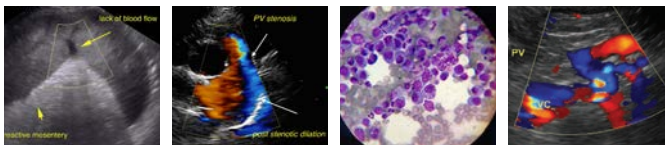
Medial iliac lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

In the cranial abdomen there is a 1.5 cm long, heterogeneous, hyperechoic density within the lumen of the vena cava.

ULTRASONOGRAPHIC FINDINGS

- **Aggressive medial lymph nodes –** most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

- **Bilateral adrenomegaly –** could be consistent with hyperplasia secondary to pituitary dependent hyperadrenocorticism. However, there is concern for phrenicoabdominal invasion from the left adrenal gland +/- concurrent caval invasion either from the left or also from the right. Alternatively, the caval density could be a thrombus secondary to underlying hyperadrenocorticism or even this dog's suspected varieties of neoplasia.



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- **Hypo to anechoic splenic nodule** – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., However, given this patient's history and variety of concurrent pathologies, infiltrative neoplasia/metastatic disease can mimic benign lesions, and cannot be ruled out.

- **Chronic Cystitis -** Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

- **Chronic Kidney Disease with right kidney pyelectasia –** This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc. Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

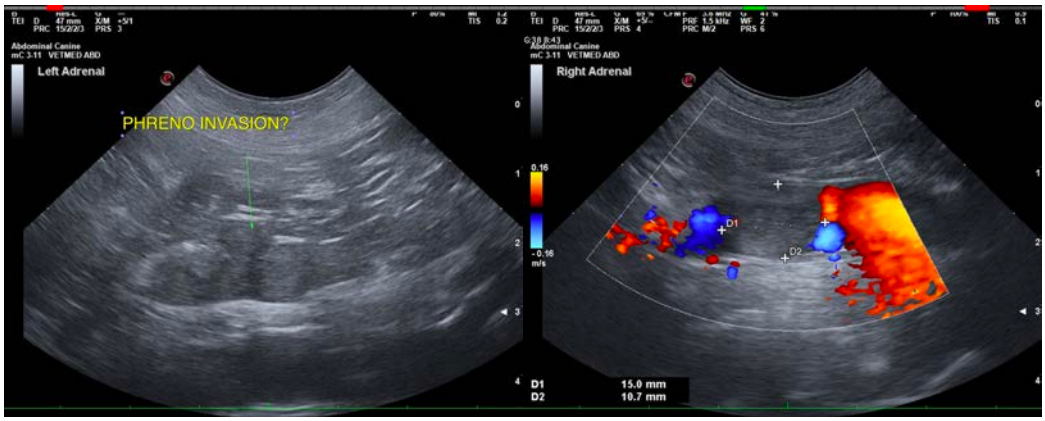
Given the history of the mammary mass as well as the lytic bone lesion, etc., metastatic disease is considered most likely. Tissue sampling of both the medial iliac lymph nodes as well as the splenic nodule/mass would be necessary and could be considered via fine needle aspirate if patient's coagulation status is appropriate, to help identify which of this patient's suspected neoplasia have metted, if these are metastatic lesions.

Definitive direction regarding the adrenal gland changes is difficult to make, given the unusual bilateral appearance. Therefore, advanced imaging such as an abdominal contrast CT scan could be considered for further evaluation of unilateral versus bilateral vascular invasion.

Having said that, given the suspected vascular invasion, infiltrative neoplasia is the top differential for this change as well. Benign hyperadrenocorticism is possible with thrombi present due to the underlying hypercoagulable state versus tumor invasion but is considered less likely.

If not recently evaluated, a 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.

Ultimately, consultation with a veterinary oncologist is recommended for this patient.



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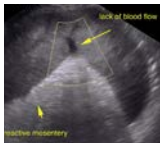
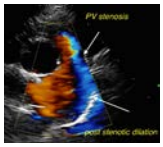
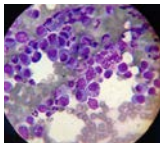
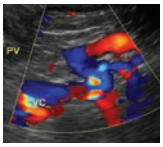

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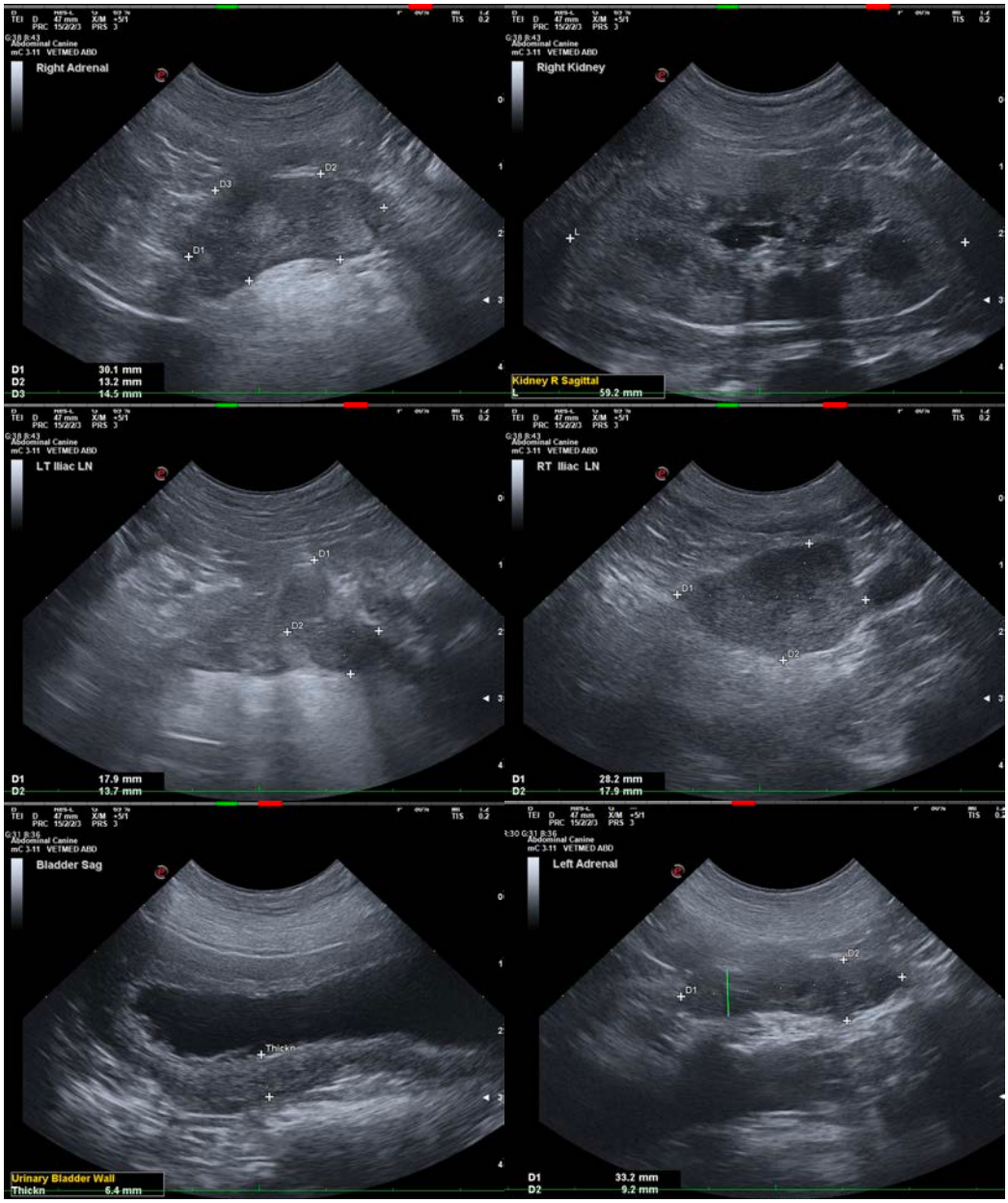

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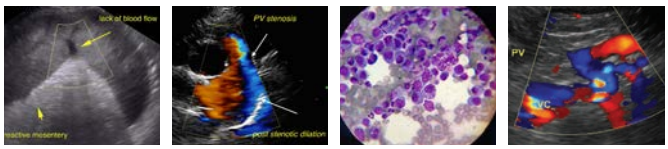

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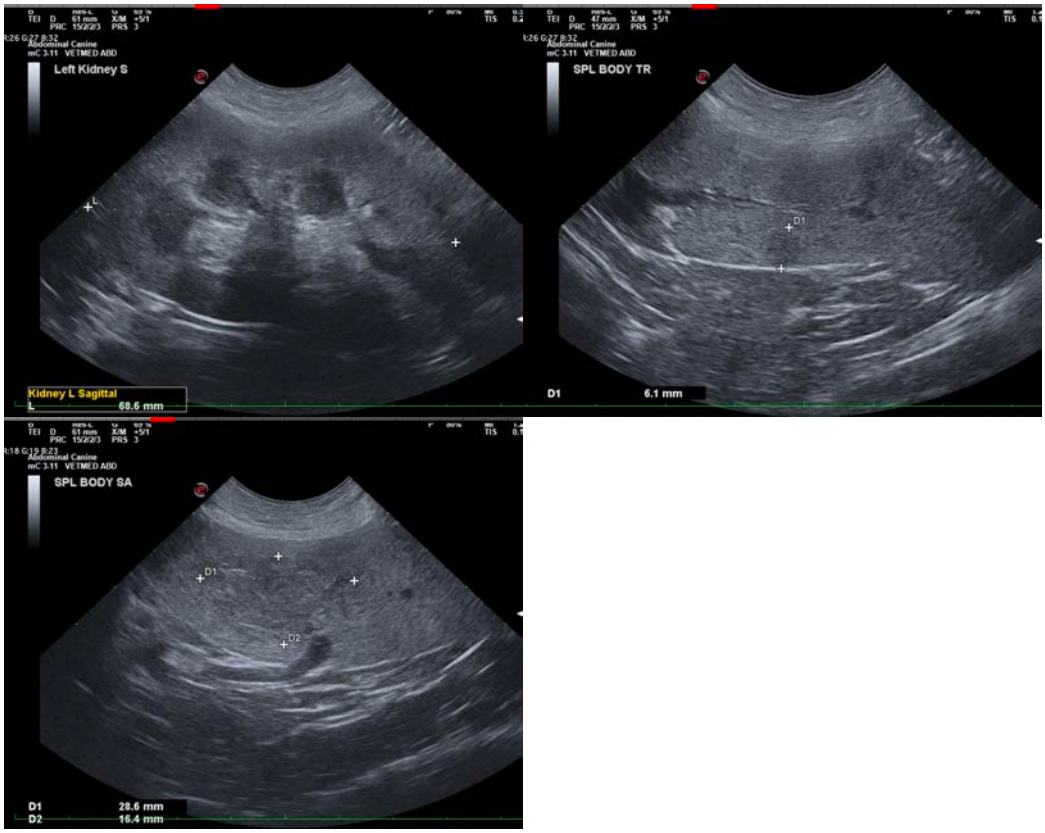

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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