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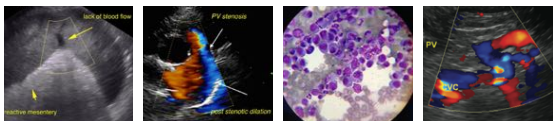


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT

Nessie Segovia

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed female

AGE

11 years

WEIGHT

13.6 lbs

INTERPRETED BY

Eric Lindquist, DMV, DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Banfield Pet Hospital of Salem

REFERRING VET

Dr. Weller

DATE

12/13/22

Invoice

43082

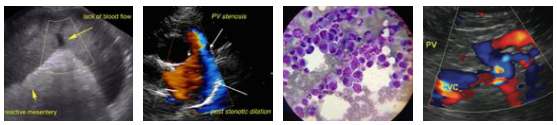
PRESENTING CLINICAL SIGNS

History: - Brief exam: Oral - MM pink, moist CRT< 2 sec; Grade 4 dental calculus. CV - gr 1-2 / 6 systolic murmur; Respiratory- WNL Abdomen - non-painful / pot-belly appearance, M/S - BCS - 5/9 (w/ distended abdomen). medial buttress bilateral on stifles, base-narrow stance on hindlimbs. Unable to flex stifles and falls over due to hind end instability. Skin/hair coat - dry coat, skin is paper-thin over ventral abdomen, patchy alopecia over trunk, Numerous SQ masses: PLNs - normal size/shape. - Diagnoses: Hyperadrenocorticism, Murmur, Hepatopathy, Arthritis / hindend paresis, periodontal disease Current Medications Trilostane 10 mg; Denamarin; Gabapentin; Galliprant Radiographic Findings SPINE/ABDOMEN/PELVIS/STIFLES November 29, 2022: 4 views are provided (opposite lateral and VD projections). FINDINGS: Abdominal serosal detail is adequate. There is a large lobular mass effect with irregular mineralization in the mid-ventral abdomen. This is equivocally confluent with liver but caudal to the pylorus. The spleen is not definitively delineated. The cranial abdomen is not included on the VD view. The stomach contains normal appearing ingesta and is normal in size and position. Small intestinal structures contain gas and fluid without evidence of pathologic bowel dilation or plication. The cecum and colon contain gas with minimal feces. There is no other evidence of organomegaly or mass effect. Mild spondylosis is considered incidental. The pelvis and coxofemoral joints are within normal limits bilaterally. There is bilateral hind limb muscle atrophy. There is moderate to severe periarticular remodeling of both stifle joints without obvious stifle joint opacification, distention, or cranial tibial thrust. There is no evidence of popliteal lymphadenopathy. No overt tarsal abnormalities are detected. Costochondral and sternebral remodeling is considered incidental. The visible caudal thoracic and skeletal structures are otherwise unremarkable. No other significant abnormalities are seen. CONCLUSIONS: 1. There is severe chronic secondary joint disease of both stifles. This is suspected to be associated with chronic trauma, dynamic patellar instability, or prior immune mediated arthritis. There is no current evidence of joint effusion to suggest intracapsular injury or instability. 2. The spine, hips, and tarsi are unremarkable. 3. Bilateral hind limb muscle atrophy may be neurogenic or secondary to disuse. 4. The large partially mineralized soft tissue mass in the mid-ventral abdomen may be a pedunculated hepatic mass or arising from spleen. A neoplastic process is of significant concern although benign or inflammatory lesions are also possible. The abdomen otherwise has an unremarkable postprandial appearance. RECOMMENDATIONS: Abdominal ultrasound or CT is recommended for further localization and characterization of the abdominal mass, and to obtain guided sampling. Three view thoracic radiographs or thoracic CT are recommended to look for evidence of pulmonary metastasis. Consultation with an orthopedic surgeon and arthrocentesis should be considered for further evaluation of the stifle joints. Megan Uerling, DVM, Dip. ACVR Radiologist Primary Question/Differential to Be Answered in This Exam Evaluation of partially mineralized mass in mid-ventral abdomen. Is appearance consistent with neoplastic origin.
Abnormal PE/Chem/CBC/UA Results: 11/29/22: ALT 659; ALkp 7133; GGT 48 ACTH stim pre- 4.6 / post- 5.6 Liver values stable over past 6 months.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.



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The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The kidneys revealed cortical infarcts and chronic interstitial nephrosis pattern noted in both kidneys. The right kidney measured 4.89 cm. The left kidney measured 4.18 cm with pelvic mineralization.

Adrenal Glands

The left **adrenal gland** was enlarged at the cranial pole and measured 2.39 x 1.0 cm at the cranial pole and 0.73 cm at the caudal pole. The right adrenal gland was uniformly enlarged and measured 2.22 x 1.25 cm at the cranial pole and 0.68 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

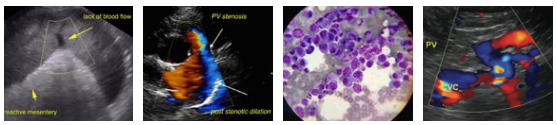
The **liver** revealed mixed hyperechoic, moderately complex 8.6 cm “puffy cloud” type mass. This is strongly consistent with carcinoma. The mass appeared to be occupying the majority of the left caudal liver and impinged upon the portal hilus. Portions of the liver mass appeared to be mineralized and impinged upon the spleen caudally. Minor inflammatory pattern was noted around the liver mass. Increased portal markings were noted in the remainder of the liver, yet the portal vein, vena cava and common bile duct appeared unaffected. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain



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upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

Left-sided liver mass, likely carcinoma with areas of mineralization, appears potentially resectable.

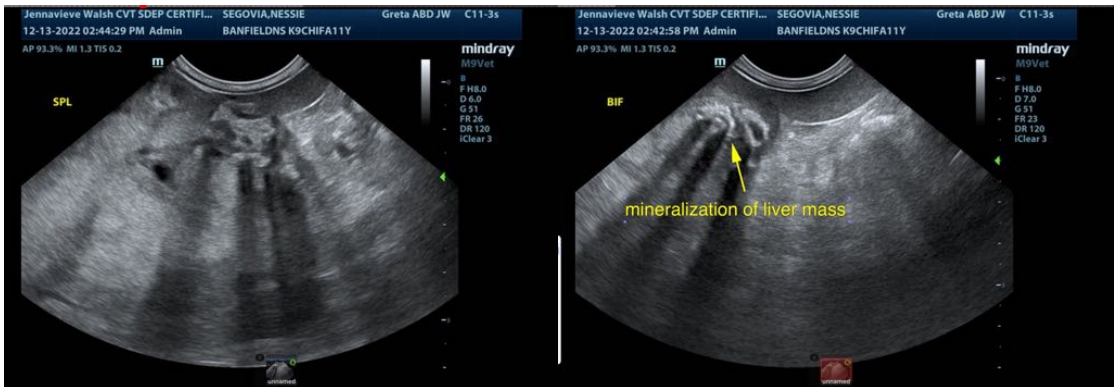
Moderate degenerative renal changes with left renal calculus.

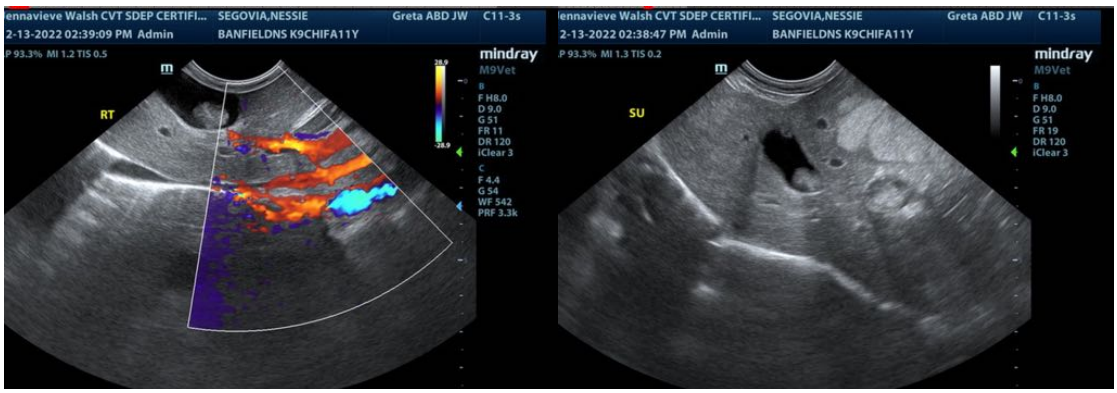
Chronic pancreatic changes.

Bilateral adrenal hypertrophy with slight irregular contour, concern for underlying Cushing's/PDH.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The left-sided liver mass appears to be resectable. CT evaluation is warranted for surgical planning.





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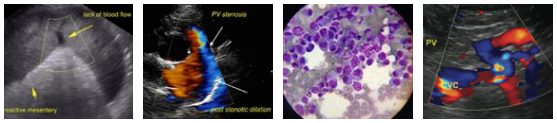

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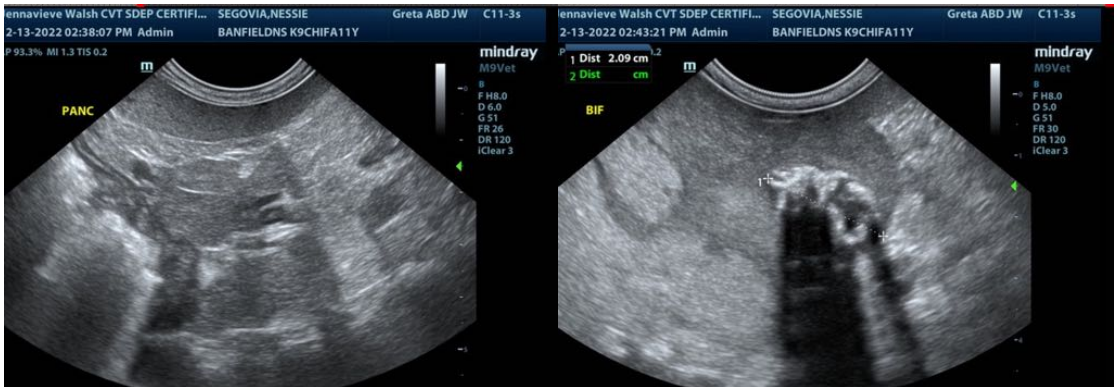

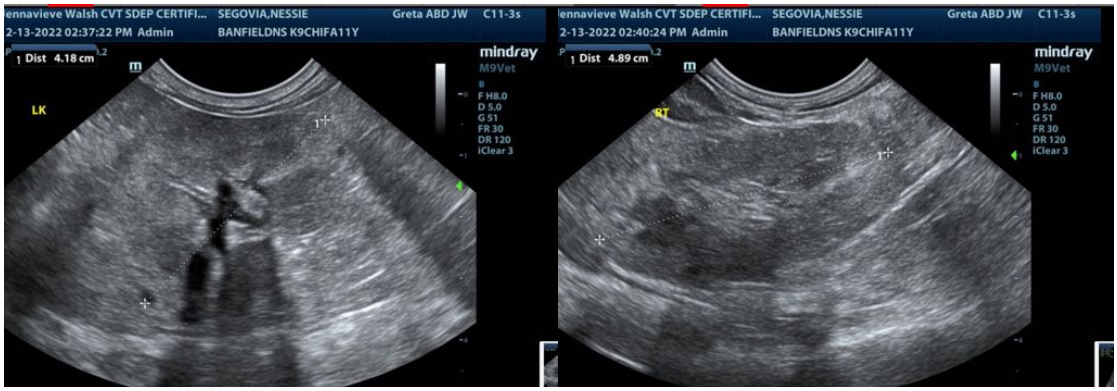

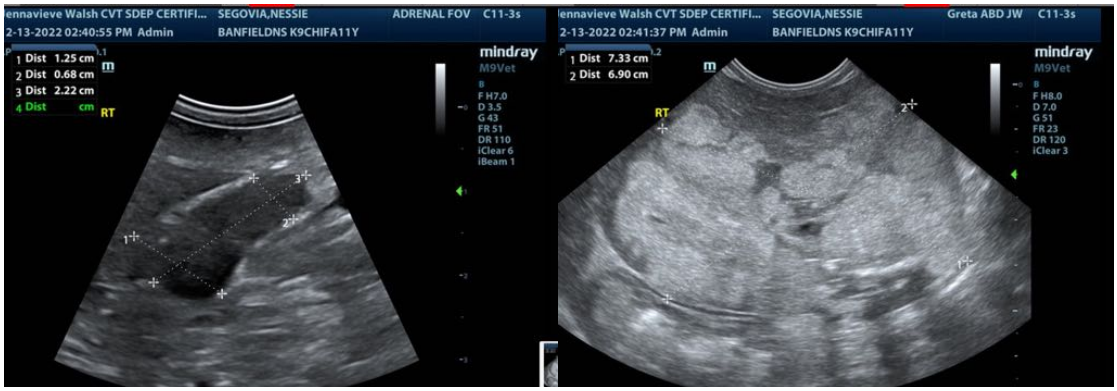

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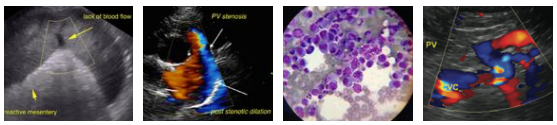

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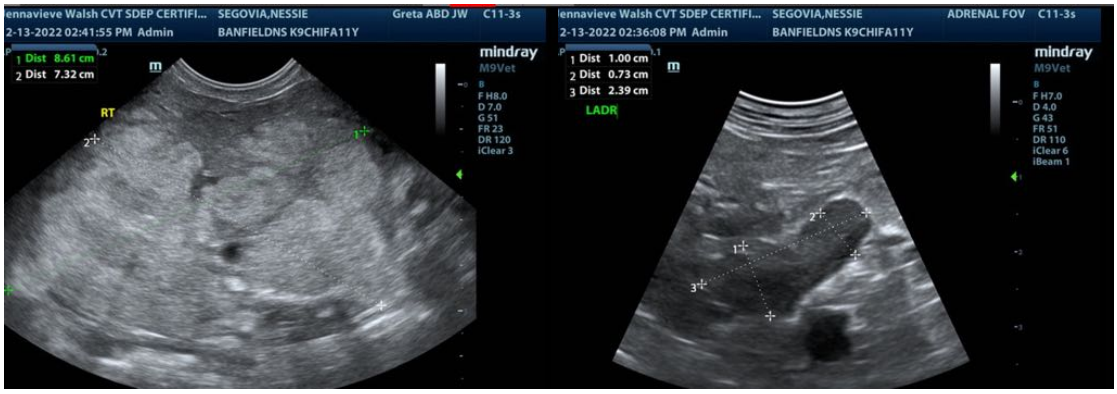

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS

CEO of Sonopath.com

Eric.Lindquist@SonoPath.com