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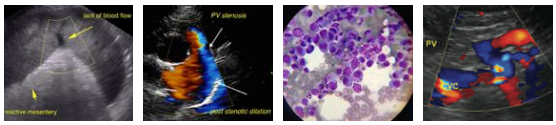


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Walter Meyer

SPECIES
Canine

BREED
Havanese

SEX
Intact male

AGE
11 years

WEIGHT
8.4 lbs

INTERPRETED BY
Eric Lindquist, DMV, DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
Banfield South Eugene

REFERRING VET
Dr. Wright

DATE
3/14/22

Invoice
96837

PRESENTING CLINICAL SIGNS

History: HEART/LUNGS: no arrhythmias, synchronous pulses, Lungs clear, No coughing. grade 4/6 heart murmur with PMI on right LN: peripheral LNs are normal in size, shape, consistency. GI/UG: soft nonpainful abdomen on palpation. no descended testicles - abdominal cryptorchid, bladder palpates thickened on palpation. RECTAL: hx of full but normal anal sacs. unable to palpate prostate due to feces in rectum, repeated rectal after BM - prominent, symmetric, nonpainful prostate. M/S: no lameness nor abnormalities appreciated. angular limb deformity of both forelimbs causing significant non-weight bearing lameness of thoracic limbs, grade 4/4 medially luxating patella bilaterally, NEURO: appropriate mentation, no deficits appreciated, nor spinal pain.
Abnormal PE/Chem/CBC/UA Results: Urinalysis (antech) - preliminary results show active sediment with 11-20 transitional epithelial cells phpf, trace glucose on dipstick, 2+ protein on dipstick, >50+ WBC phpf, 21-50 RBC phpf. clinical pathologist review of sediment: neutropihilic inflammation, epithelial proliferation with mild cellular atypia (the urine sediment is active and appears inflammatory with abundant neutrophils. no infectious agents are observed, but bacterial culture may be more sensitive in detecting low numbers of bacteria. moderate numbers of epithelial cells found in clusters and individually - no cytologic evidence of malignancy is observed but ultrasound is recommended).
Radiographic Findings Radiology routine consult - There are multiple elliptical shaped soft tissue opacities in the caudal abdomen. Serosal detail of the abdomen is normal. The liver and spleen are normal. No GI abnormalities are noted. The kidneys cannot be seen well enough to interpret. The caudal thorax and skeletal structures are within normal limits other than patellar luxation. CONCLUSIONS: There are multiple structures in the caudal abdomen which likely represent prostatomegaly and the urinary bladder. Prostatomegaly is expected in an entire male dog although excessive benign prostatic hyperplasia and prostatitis are possibilities as well. An additional soft tissue opacity is present which may represent an enlarged cryptorchid testicle. No other abnormalities are noted.
RECOMMENDATIONS: Abdominal ultrasound is recommended to further assess the prostate for a periprostatic cyst or for a neoplastic cryptorchid testicle. Angela Hartman DVM, DACVR

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

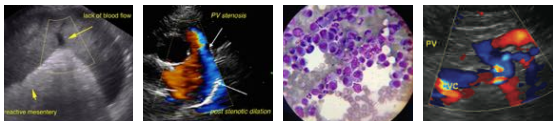
Urinary System

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI.

The **prostate** was uniformly enlarged with lobar swelling appeared to impinge upon the urethra and mildly deviate the descending colon. The prostatic tissue was hyperechoic containing focal areas of decreased echogenicity. These changes are suggestive of either chronic inflammatory episodes, benign cystic pathology or both. Underlying neoplasia cannot be completely ruled-out but is lower on the differential list. This presentation is most consistent with benign prostatic hyperplasia with possible active prostatitis. Neutering or off-label Finasteride (Propecia) (0.1-0.5 mg/kg Sid) treatment is indicated +/- FNA or prostatic wash cytology and culture. Edema lines were noted in the prostate. This is suggestive for prostatitis. The prostate was mildly vascular. The prostate measured 2.6 cm.

The iliac lymph node is reactive and measured 1.3 x 0.8 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding



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the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.0 cm. The left kidney measured 4.0 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 1.41 x 0.97 cm at the cranial pole and 0.46 cm at the caudal pole. The left adrenal gland measured 1.29 x 0.36 cm at the caudal pole and 0.36 cm at the cranial pole.

Spleen

A focal, hypoechoic **splenic** nodule was noted and measured 0.7 cm. This is likely hyperplasia with minor heterogenous changes noted in the spleen elsewhere. A separate nodule was noted at the cranial pole of the spleen as well.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

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. The mesenteric lymph node was slightly enlarged, rounded and measured 0.8 cm.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

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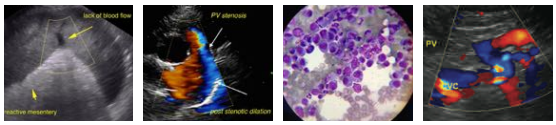

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Free Abdomen

An undifferentiated mixed hypoechoic mass was noted in the midabdomen. This is presumed to be retained testicle. This is likely transformation to Sertoli cell tumor and measured 3.0 cm.

ULTRASONOGRAPHIC FINDINGS

Midabdominal mass.

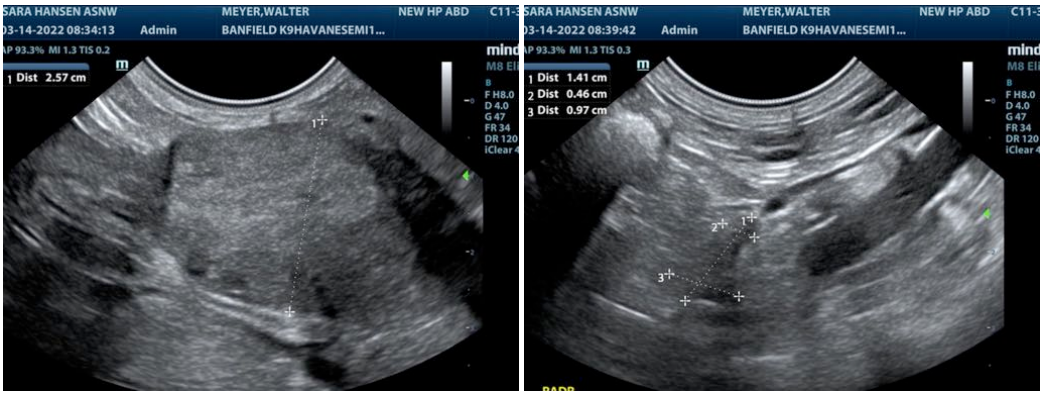
BPH prostate with prostatitis, suspect Sertoli cell tumor.

Splenic nodules.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Laparotomy is recommended. FNA of the splenic nodules and midabdominal mass could be considered for screening purposes or direct laparotomy with mass removal +/- splenectomy and full neuter. Assuming that the second testicle is extraabdominal. Treatment for UTI is recommended.

Canine Chronic UTI Protocol
I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.



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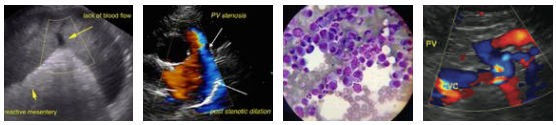

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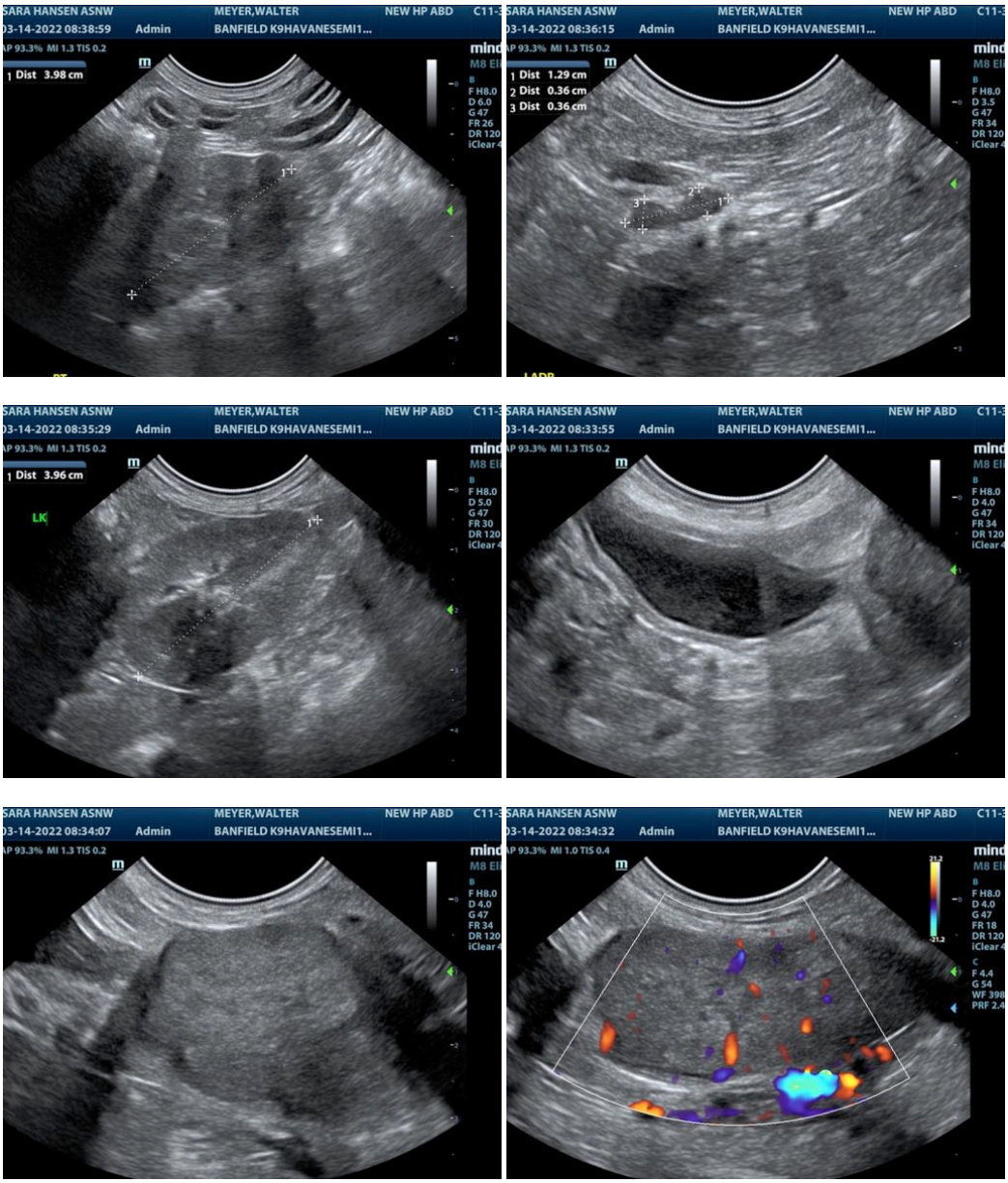

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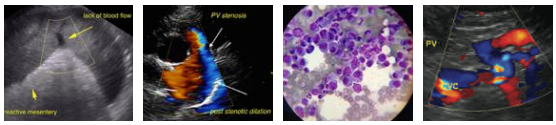

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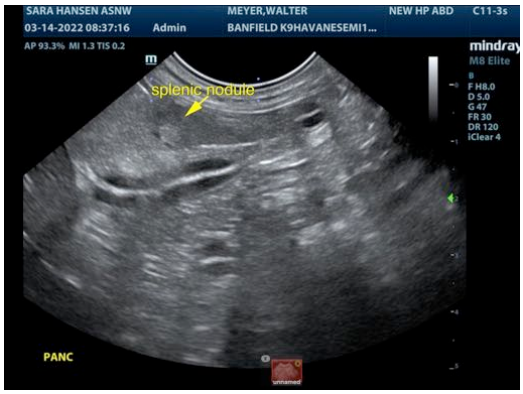

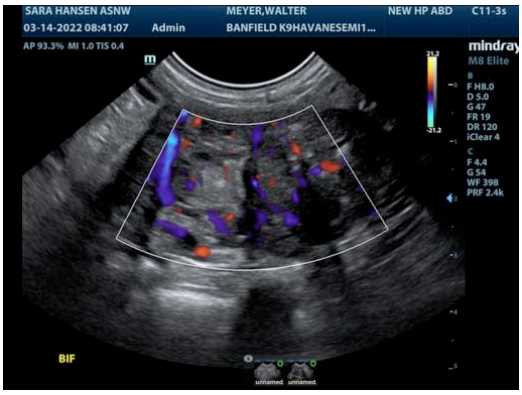

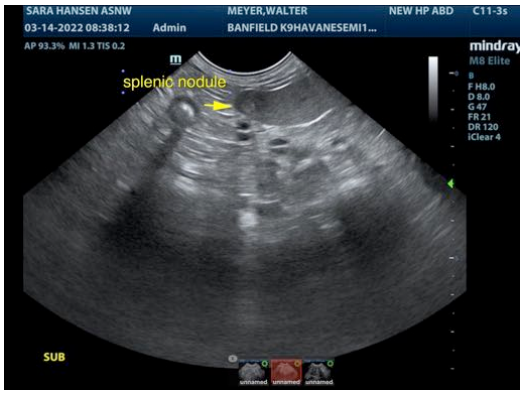

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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