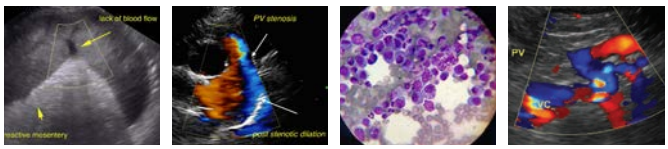
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Bauer Field

SPECIES

Canine

BREED

Shih Tzu X

SEX

Neutered Male

AGE

7 Years 5 Months

WEIGHT

6.2 kg

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Brian Barnes

HOSPITAL NAME

Westview Vet Hospital

REFERRING VET

Dr. Brian Barnes

INVOICE

45404

DATE

2/22/23

PRESENTING CLINICAL SIGNS

Dog has cystotomy for stones Feb 16, 2023 by associate DVM. Was doing well post op then started to strain again and now has blood in the urine. Very chronic thickened bladder at time of surgery.

Abnormal PE/Chem/CBC/UA Results: Some wound dehiscence near the penis. Straining to have BM Pre Sx Xrays: 1. Numerous cystic calculi. 2. The mineralization along the ventral aspect of the bladder could simply be secondary to distribution of the calculi, but the possibility of mineralization of a bladder mass cannot be ruled out. 3. Widening of the trigone region, the enlarged prostate and wispy loss of detail in this region is extremely concerning. Prostate neoplasia is highly suspected. Prostatitis cannot be ruled out. It is possible that if prostate neoplasia is present that this is likely extended into the trigone region causing widening of the trigone. 4. Constipation. 5. Unremarkable thoracolumbar spine. 6. Intervertebral disc disease at C4-C6. 7. Unremarkable pelvis. 8. Unremarkable geriatric thorax. Repeat Xray post cystotomy no stones

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 (0.57 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. However, there is a suspended echogenic density within the lumen that may represent a blood clot, mucus, other debris, etc. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

The prostate is mildly enlarged for a neutered dog, measuring 1.0 cm wide. Parenchyma is diffusely heterogeneous and primarily hypoechoic. Normal distinct margins and symmetrical bilobed shape are maintained. However, there is an anechoic area within the prostate that may represent a cyst or even a prostatic abscess. There is a 0.30 cm mineral density within this area that may represent mineralization of the prostate, or potentially a small cystoliths, as the location within prostatic tissue versus within the intraprostatic urethral lumen cannot be differentiated.

The right kidney is normal in size (4.96 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 (4.24 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

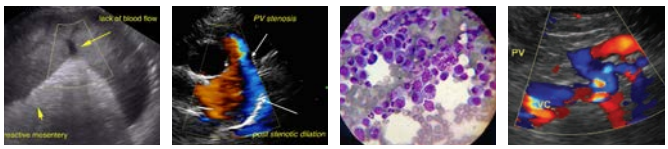
The right adrenal gland is normal in size (1.63 cm long x 0.75 cm at the cranial pole and 0.45 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.47 cm long x 0.40 cm at the cranial pole and 0.52 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Bauer Field

SPECIES
Canine

BREED
Shih Tzu X

SEX
Neutered Male

AGE
7 Years 5 Months

WEIGHT
6.2 kg

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Dr. Brian Barnes

HOSPITAL NAME
Westview Vet Hospital

REFERRING VET
Dr. Brian Barnes

INVOICE
45404

DATE
2/22/23

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.

Gallbladder is moderately distended with anechoic bile as well as moderate suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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

A small amount of free fluid is present in these images, as is diffusely enhanced hyperechoic mesenteric fat, most severely noted in the caudal abdomen around the urinary bladder and prostate.

There is no apparent lymphadenopathy noted in these images.

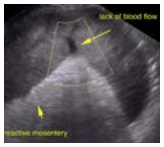
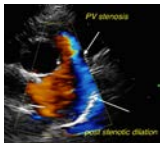
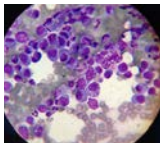
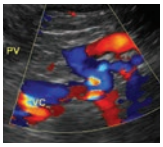
PRIMARY FINDINGS

- **Prostatomegaly with an anechoic foci and mineral** – Concerning for prostatic cyst or even abscess. Infiltrative neoplasia is considered slightly less likely, but definitely cannot be definitively 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.

- **Inflammatory changes (i.e., free fluid and enhanced mesenteric fat) most appreciated in the caudal abdomen –** May to some degree represent normal post-operative change. However, focal peritonitis related to suspected prostatitis +/- suture reaction versus other is also at least partially likely.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Bauer Field

SPECIES
Canine

BREED
Shih Tzu X

SEX
Neutered Male

AGE
7 Years 5 Months

WEIGHT
6.2 kg

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Dr. Brian Barnes

HOSPITAL NAME
Westview Vet Hospital

REFERRING VET
Dr. Brian Barnes

INVOICE
45404

DATE
2/22/23

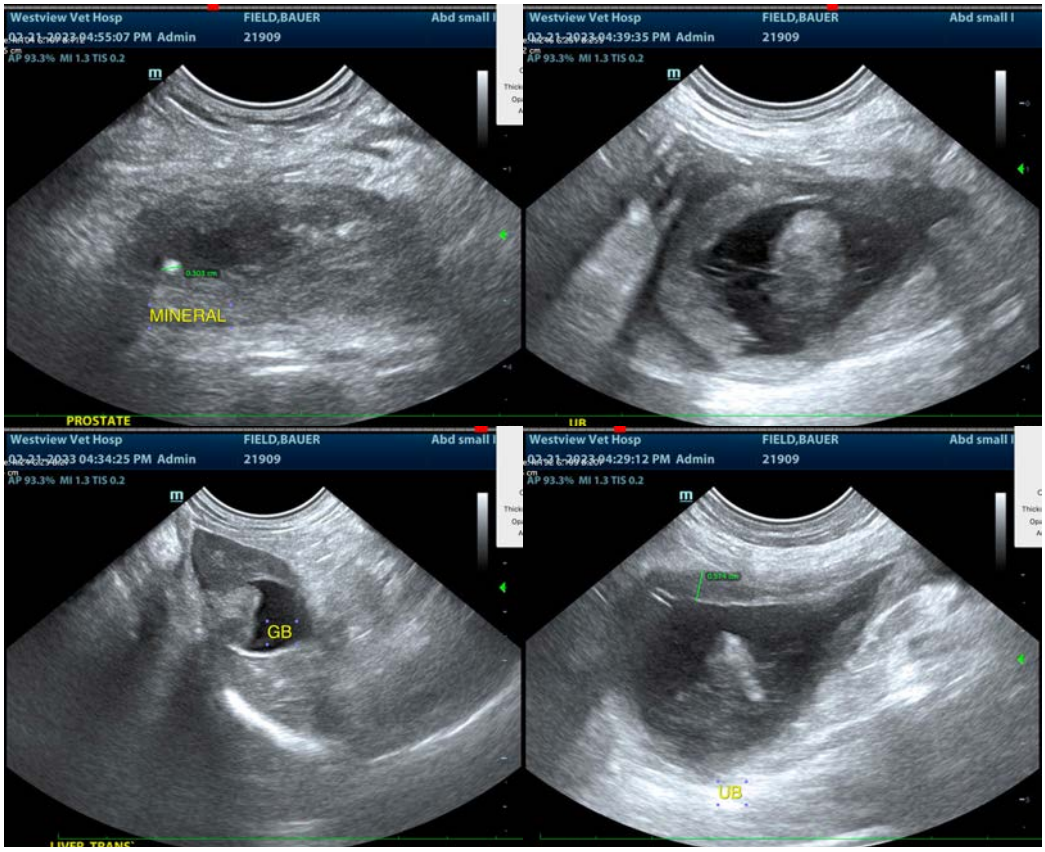
SECONDARY FINDINGS

- **Moderate gallbladder debris -** Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

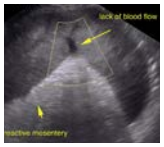
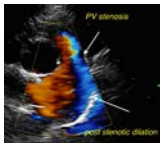
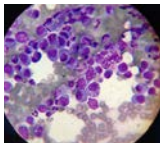
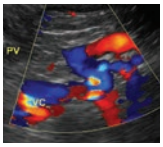
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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 and prostate 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.

As was reportedly already evaluated, the prostatic cytology is concerning for bacterial prostatitis or even an abscess. Therefore, while awaiting culture results and BRAF results, broad-spectrum empirical antibiotics with good prostatic penetration such as a fluoroquinolone and anti-inflammatory may help to begin alleviating clinical signs. If there is a prostatic abscess, however, re-exploratory surgery of the area for omentalization, etc. may ultimately be recommended.



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Bauer Field

SPECIES

Canine

BREED

Shih Tzu X

SEX

Neutered Male

AGE

7 Years 5 Months

WEIGHT

6.2 kg

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Brian Barnes

HOSPITAL NAME

Westview Vet Hospital

REFERRING VET

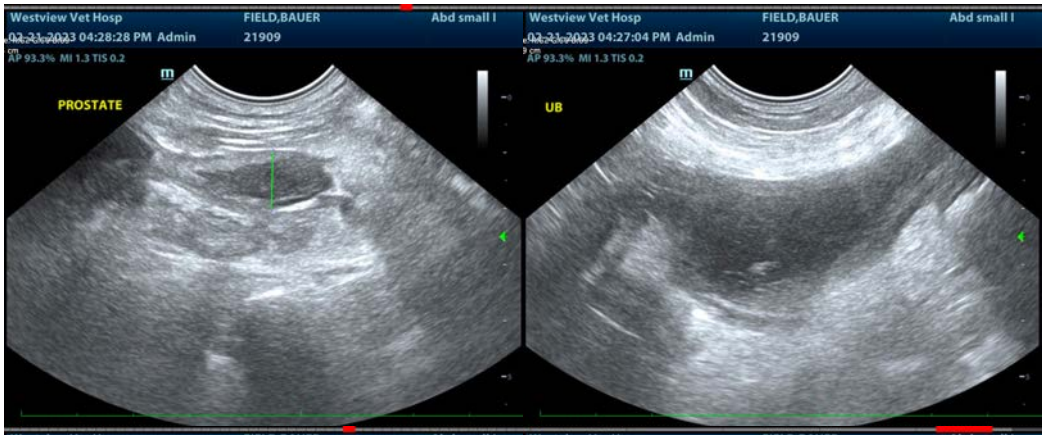
Dr. Brian Barnes

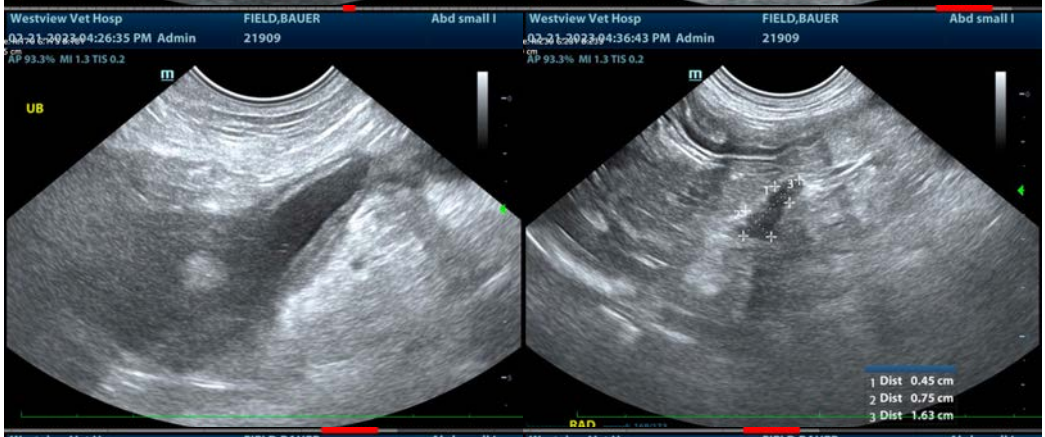
INVOICE

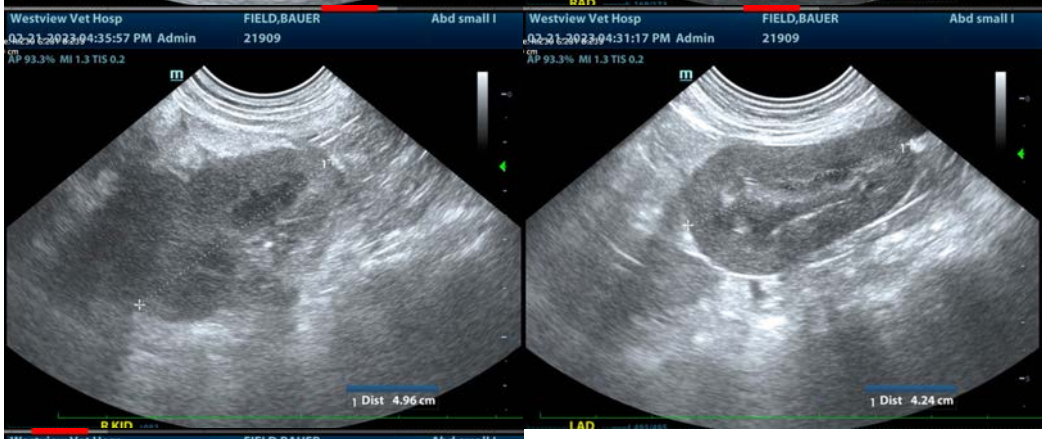
45404

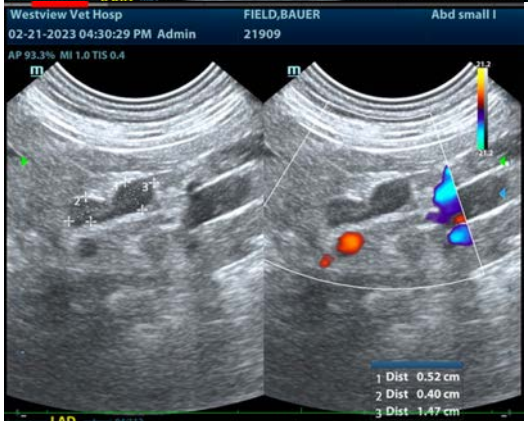
DATE

2/22/23

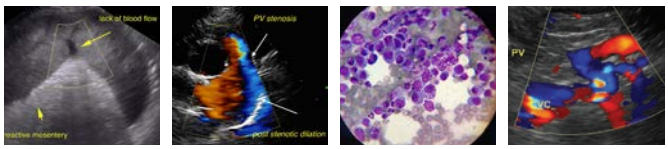








SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Bauer Field

SPECIES

Canine

BREED

Shih Tzu X

SEX

Neutered Male

AGE

7 Years 5 Months

WEIGHT

6.2 kg

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Brian Barnes

HOSPITAL NAME

Westview Vet Hospital

REFERRING VET

Dr. Brian Barnes

INVOICE

45404

DATE

2/22/23

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