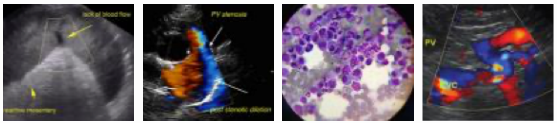
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



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

**PATIENT**

Owen Wan

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Neutered Male

**AGE**

9 years

**WEIGHT**

36 lbs

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Albany AH

**REFERRING VET**

Dr Spangler

**INVOICE**

13612

**DATE**

7.7.23

## PRESENTING CLINICAL SIGNS

History: Was seen over the weekend on ER for Wheezing Tachypnea. Came back to primary DVM for ultrasound and further DX CBC, Chem WNL TT4, fT4 WNL 4DX snap test neg for all fecal parasitology neg for all Radiographic Findings Diffuse soft tissue nodular interstitial pulmonary pattern suggestive of metastatic neoplasia (sarcoma vs carcinoma) Diffuse broncho-interstitial pulmonary pattern Abdominal ultrasound to assess for evidence of primary neoplasia.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal to slightly large in size (5.50 cm), with disruption of normal corticomedullary architecture and capsule, as the result of multi-focal, heterogenous, primarily hypoechoic nodules. No mineral is observed.

Right kidney is normal to slightly large in size (6.44 cm), with disruption of normal corticomedullary acrchitecture and capsule, as the result of multi-focal, heterogenous, primarily hypoechoic nodules (The right kidney appearing more nodular than the left kidney). No mineral is observed.

### *Adrenal Glands*

Left adrenal gland is normal in size (0.52 cm at cranial pole / 0.33 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.88 cm at cranial pole / 0.45 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

### *Spleen*

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

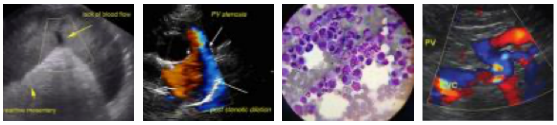
### *Liver*

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 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 visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.





**PATIENT**

Owen Wan

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Neutered Male

**AGE**

9 years

**WEIGHT**

36 lbs

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Albany AH

**REFERRING VET**

Dr Spangler

**INVOICE**

13612

**DATE**

7.7.23

The visible small intestines are normal in wall thickness and layering. 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 and layering. Contents are consistent with normal formed feces and gas.

### *Pancreas*

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### *Free Abdomen*

There is no free fluid. Just caudal to the left kidney, there is a 2.00 cm, round, enlarged lymph node with swollen, irregular capsular contour, heterogenous, cavitated architecture and loss of normal length: width ratio. There is no apparent lymphadenopathy.

### *Other*

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

## ULTRASONOGRAPHIC FINDINGS

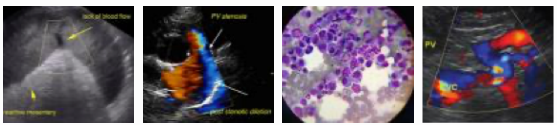
### Findings

- The bilaterally nodular kidneys, honeycomb spleen and heterogenous, cavitated lymph node caudal to the left kidney are concerning for Infiltrative, and likely metastatic neoplasia (such as renal carcinoma vs sarcoma vs other), especially given the reported evidence of pulmonary metastatic disease. A benign inflammatory or infectious granulomatous condition (i.e., fungal disease vs other) is possible, but considered less likely.

- Mild 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

- As is reportedly already pending, fine-needle aspirates of the enlarged lymph node, the spleen, +/- the kidneys (again with the right kidney being more nodular than the left kidney) are recommended for cytology. Pending cytology results, consultation with a veterinary oncologist could be considered.





**PATIENT**

Owen Wan

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Neutered Male

**AGE**

9 years

**WEIGHT**

36 lbs

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Albany AH

**REFERRING VET**

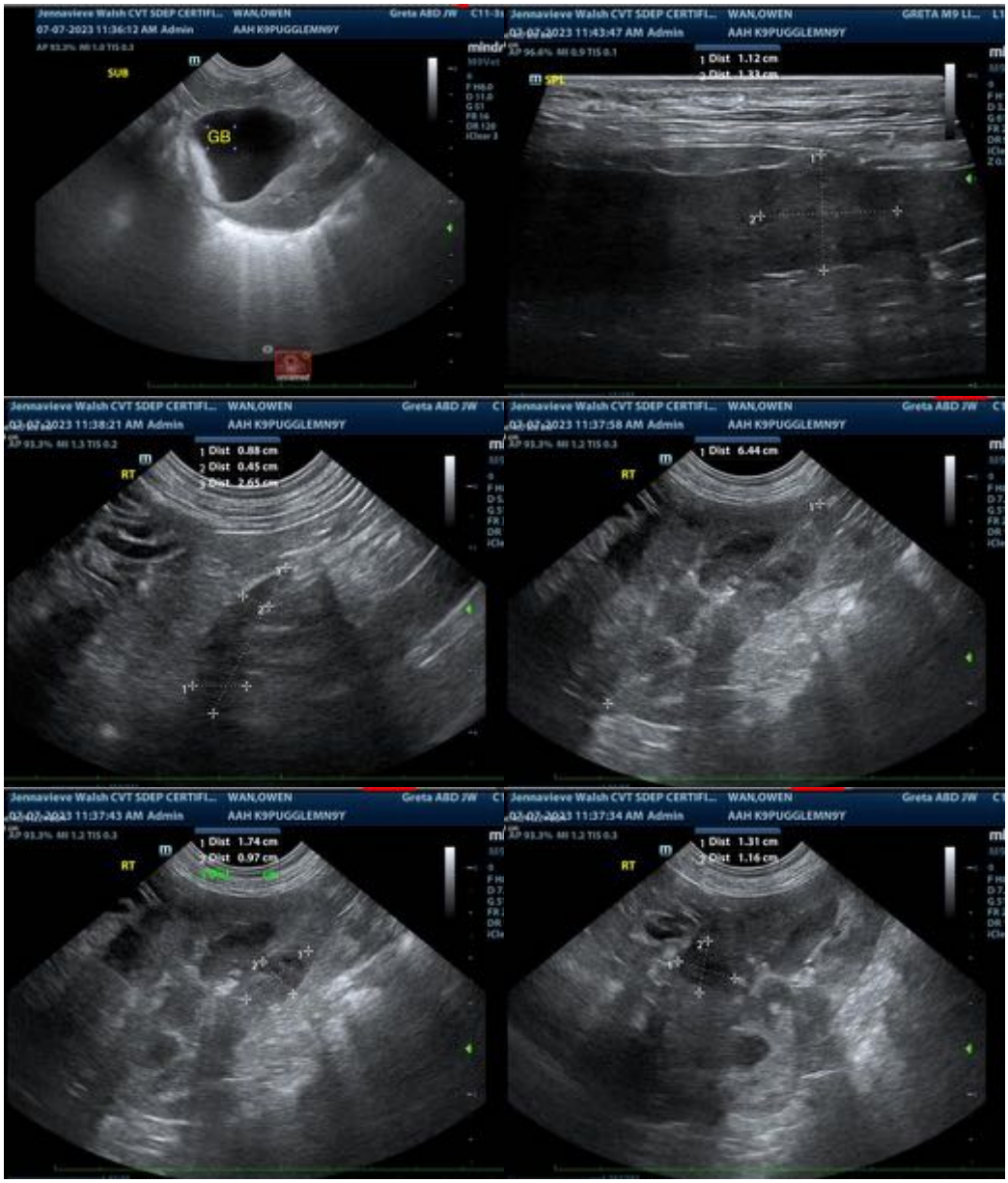
Dr Spangler

**INVOICE**

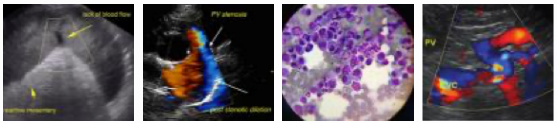
13612

**DATE**

7.7.23



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



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

**PATIENT**

Owen Wan

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Neutered Male

**AGE**

9 years

**WEIGHT**

36 lbs

**INTERPRETED BY**

Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Albany AH

**REFERRING VET**

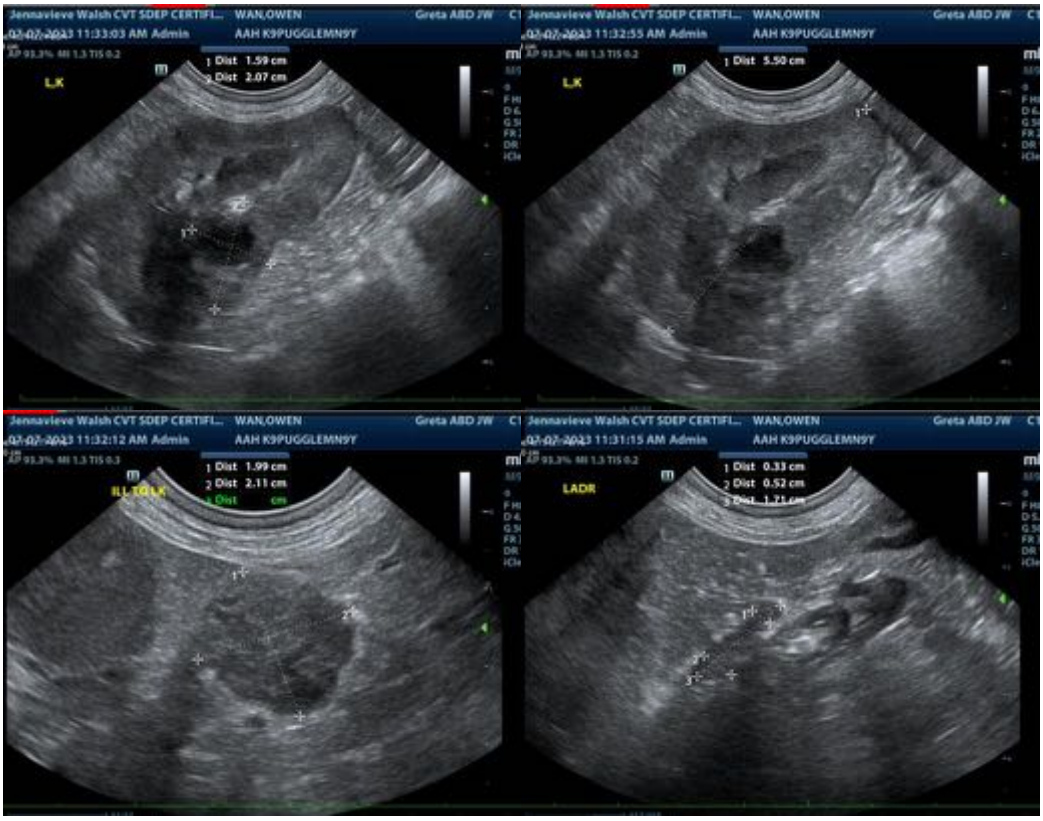
Dr Spangler

**INVOICE**

13612

**DATE**

7.7.23



**The information and recommendations provided are based on the images presented by the referring veterinarian. 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**
info@SonoPath.com