


**DATE PRESENTING CLINICAL SIGNS**

1/22/26 **Patient History:** Presenting for OVH today. Pre-op labs 12/8 - ALT: 216, BUN: 46. was recommended to recheck day of procedure. Recheck today: ALT 165 (sample hemolyzed so rechecked on new sample). ALT 140. BUN: 35. Urine SG >1.050. Concern for possible PSS vs. other. Running a Bile Acids test today.

**PATIENT**

Bubbles Strong

**Current Medications:** None.

**Labwork Results:** Labwork not attached, reported as: ALT: 140 today (216 on 12/8). BUN: 35 today (46 on 12/8)

**SPECIES**

Canine

**Date of Previous IntraPet Ultrasound:** No previous.

**Sedation:** Torbugesic.

**Stat Report:** Not requested.

**BREED**

Pug

**Imaging Performed by:** Stephanie Warga RDCS, RVT.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**SEX**

Intact Female

**Urinary System**

 The **urinary bladder** presented small calculi up to 0.15 cm, non-obstructive. These are small enough to pass without difficulty. The bladder was otherwise unremarkable.

**AGE**

3/15/25

 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. Slight pinpoint mineralizations noted in both kidneys. Left kidney measured 4.26 cm.

**WEIGHT**

16.4 lbs

**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. Right measures 1.73 cm x 0.38 cm at the cranial pole and 0.29 cm at the caudal pole. Left measures 1.88 cm x 0.34 cm at the caudal pole and 0.38 cm at the cranial pole.

**INTERPRETED BY**

Eric Lindquist, DMV, DABVP, Cert. IVUSS

**HOSPITAL NAME**

Timonium Animal Hospital

**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 were noted.

**REFERRING VET**

Dr. McMichael

**Liver**

 The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**INVOICE**

72398

Vena cava to aortic ratio was 1:1. Normal hepatic vein flow into the vena cava noted. The vena cava and aorta measured 0.53 cm and 0.58 cm, respectively. Portal vein revealed normal size and contour and 0.59 cm. Normal branching. No evidence of portosystemic shunting.

### ***Gastrointestinal***

There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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. 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.

### ***Other***

The uterus was uniform at 0.75 cm.

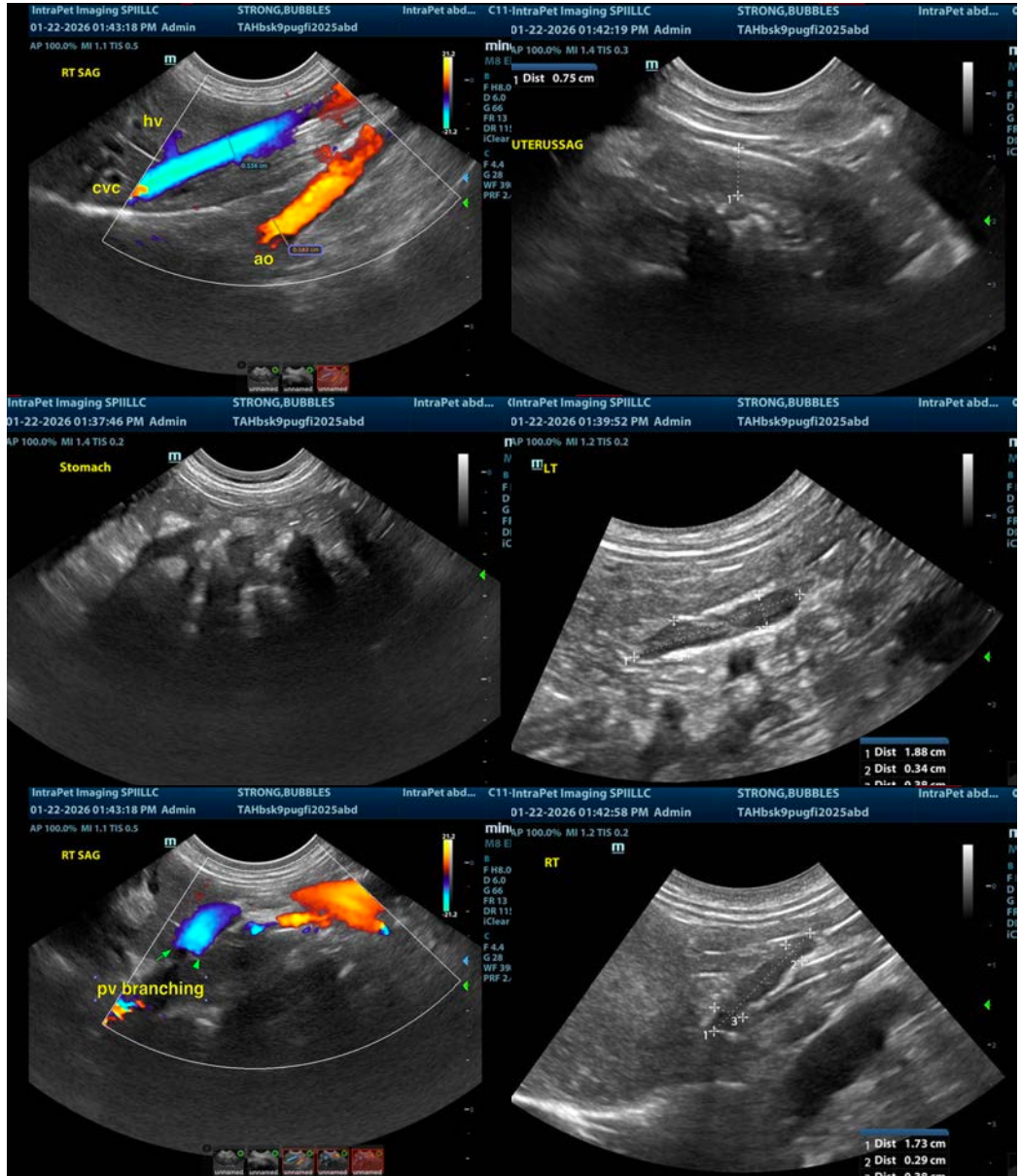
## **ULTRASONOGRAPHIC FINDINGS**

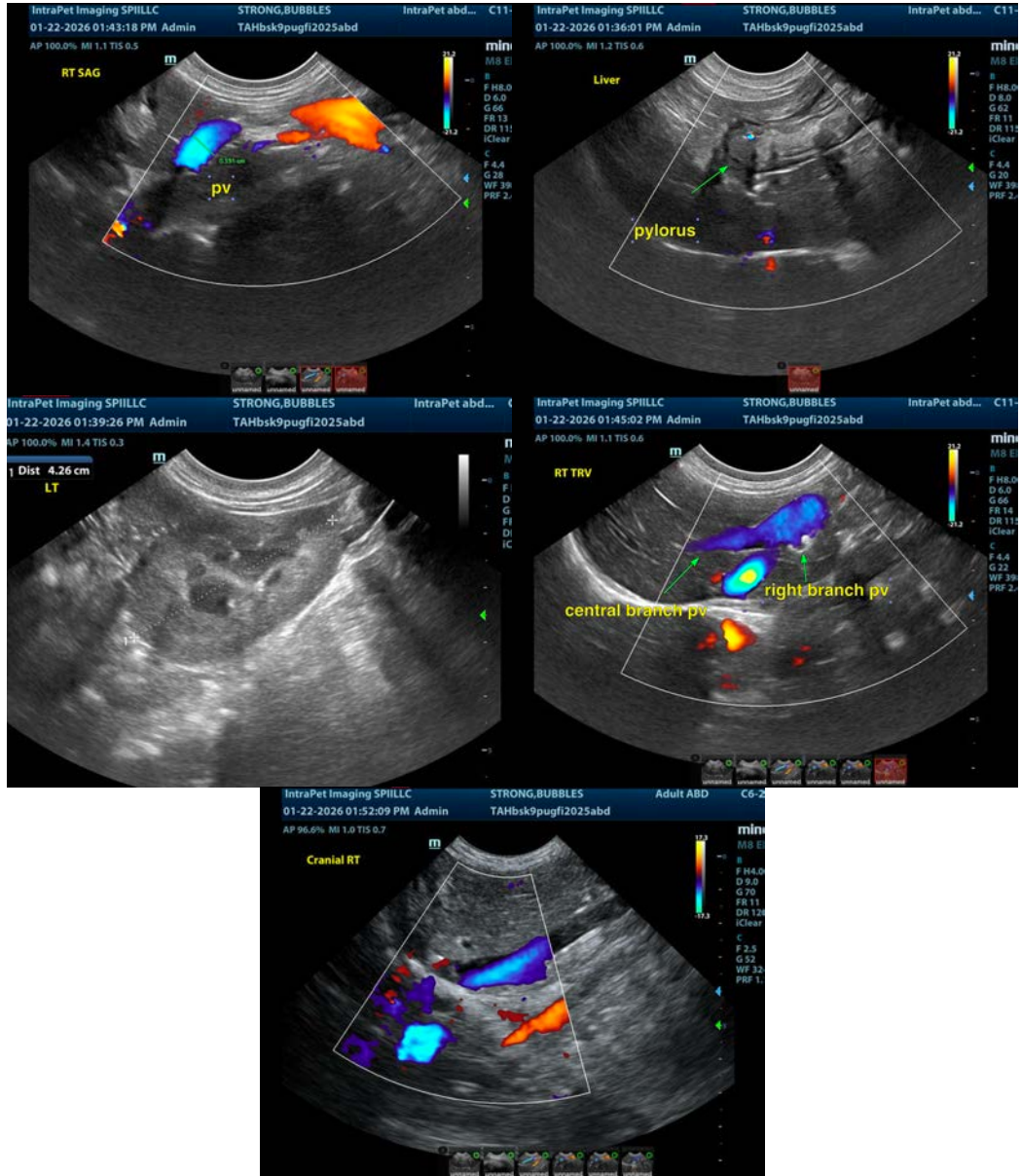
- Minor bladder calculi, non-obstructive.
- Renal mineralizations, non-obstructive.
- Partially full stomach.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of portosystemic shunting. Cystotomy could be considered at the time of ovariohysterectomy. However, the bladder calculi are small enough to pass. If bile acids are elevated, then liver biopsy would be indicated at the time of surgery to assess for portal hypoplasia/microvascular dysplasia.







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(CFM), Cert. IVUSS,**  
 CEO, Owner, Founder -- SonoPath.com  
[info@SonoPath.com](mailto:info@SonoPath.com)