


**PATIENT PRESENTING CLINICAL SIGNS**

Stewie Gorer History: Renal disease, not doing well, pancreatitis. In-hospital on IVFs, Cerenia, had Convenia inj. 2 days ago.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**Urinary System**
**BREED**

Shippo

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal. The region of the trigone and the visible of the proximal urethra are normal.

**SEX**

Intact Male

The prostate is enlarged (2.89 cm in width) with a slightly irregular shape. The parenchyma is hyperechoic relative to surrounding omental fat and heterogenous in appearance with numerous, varying-sized, ill-defined cystic areas, the largest measuring 3.09 cm in length. The prostatic urethra is not overtly dilated.

**AGE**

15 years

The left kidney is normal size (3.86 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is hyperechoic. Several, nonobstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of hydroureter. Renal vasculature is normal.

**WEIGHT**

12.8 lbs

The right kidney is normal size (3.27 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. The cortex is hyperechoic. Several, nonobstructive nephroliths are visualized. Mild pyelectasia is present (0.28 cm in the longitudinal plane). There is no evidence of hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro,  
DVM, Diplomate  
ACVIM (*Small Animal  
Internal Medicine*)

**Adrenal Glands**

The left adrenal gland is normal size (0.41 cm at cranial pole) (0.38 cm at caudal pole) (0.81 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Kelly Vazquez

The right adrenal gland is normal size (0.80 cm at cranial pole) (0.39 cm at caudal pole) (1.26 cm in length); with a normal shape and smooth peripheral contours. There is a possible 0.54 cm cystic area at the cranial aspect. The glandular echogenicity and detail at the caudal aspect are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Animal General on  
Hudson

**Spleen**

The spleen is normal in size (1.21 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**REFERRING VET**

Dr. Freedman

**Liver**

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and heterogenous in appearance, with at least one, small, ill-defined

**INVOICE**

10921

**DATE**

5/18/22

hyperechoic nodule (measuring 0.76 cm in its longest dimension). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is moderately distended with ingesta/chyme. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

### ***Pancreas***

The right limb is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and subtly mottled in appearance. The pancreatic duct is visible but not overtly dilated. No distinct focal lesions are observed.

### ***Free Abdomen***

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

### ***Other***

The left testicle measures 2.49 x 1.69 cm.

The right testicle measures 1.96 x 1.35 cm.

The testicles are subjectively normal in size and symmetrical with smooth peripheral contours. The left testicle is heterogenous and nodular with cavitated areas. The largest nodule measures 1.56 cm in its longest dimension. The right testicle contains 2 slightly heterogenous nodules, one measuring 0.61 cm and the other measuring 0.47 cm.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Bilateral, chronic, renal changes with nonobstructive nephrolithiasis and pyelectasia.
- The prostate changes are consistent with benign prostatic hyperplasia with parenchymal cysts. Concurrent bacterial prostatitis cannot be excluded.
- The bilateral testicular nodules could be consistent with age-related remodeling or unilateral or bilateral tumors.

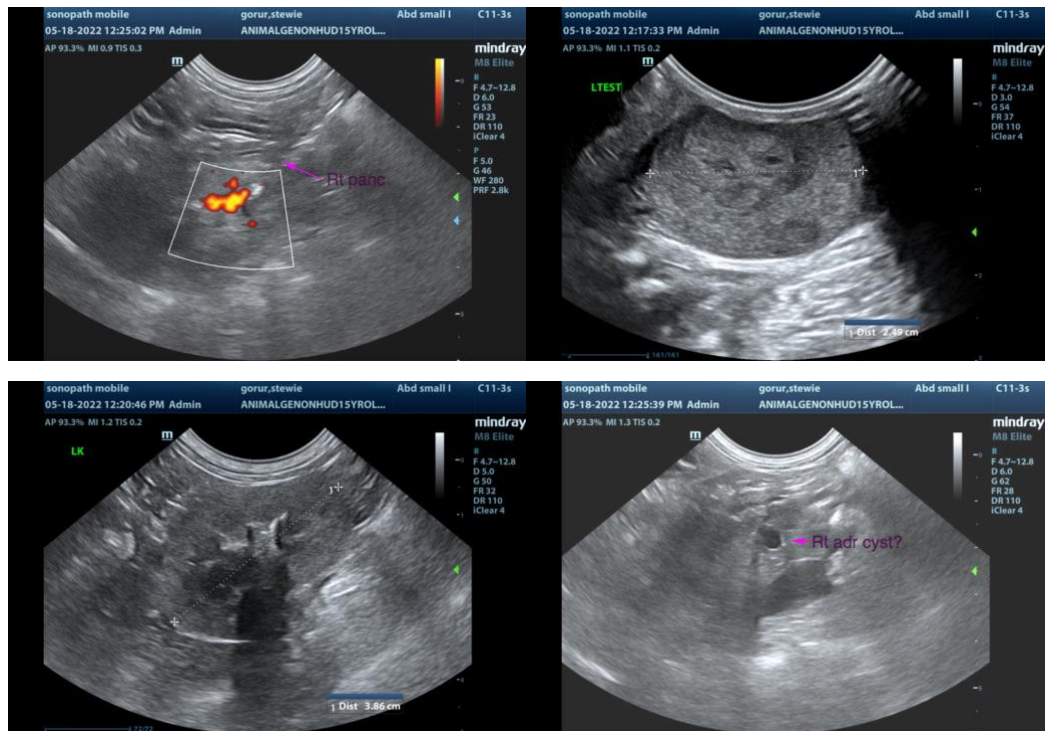
### **Secondary Findings**

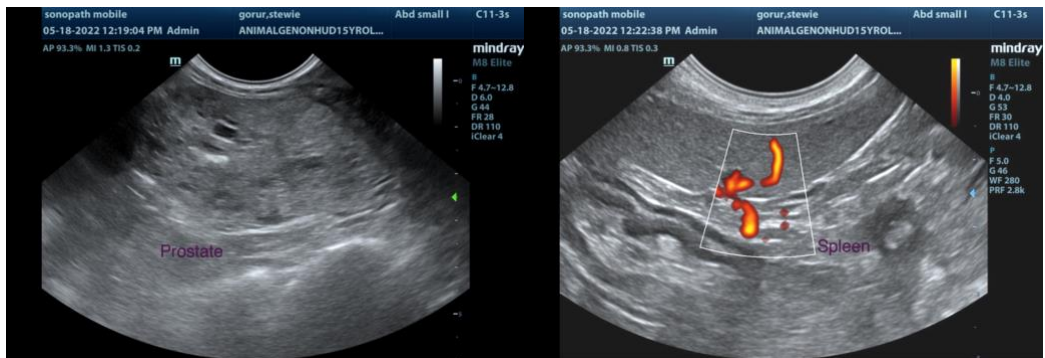
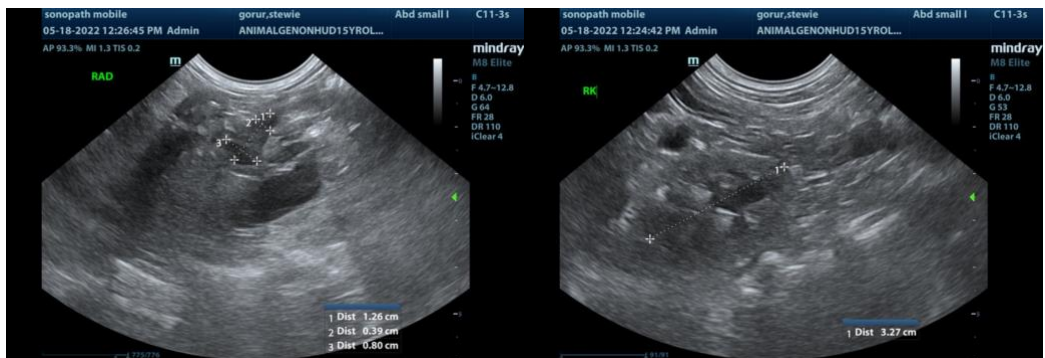
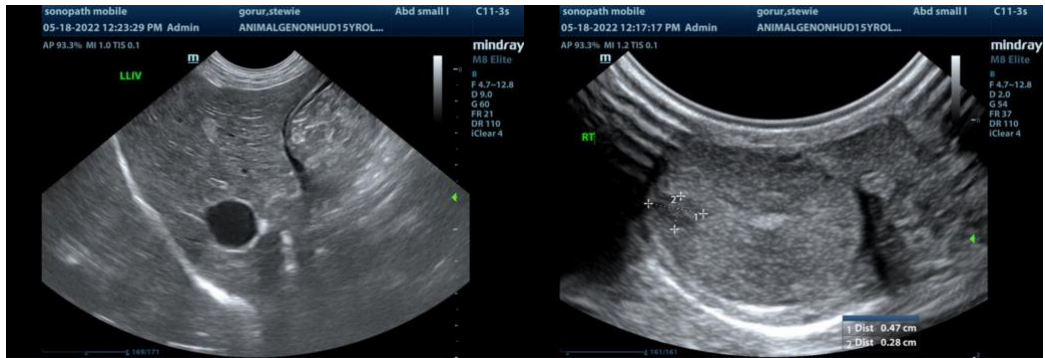
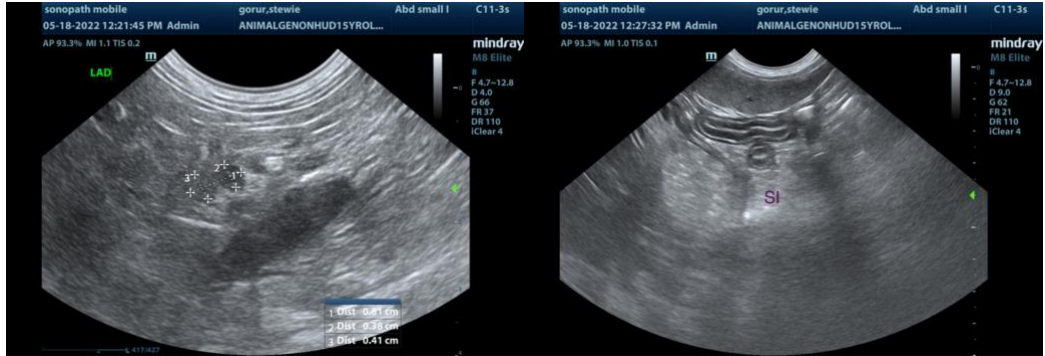
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

- Questionable right adrenal cyst.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the renal disease, a urine culture and sensitivity (preferably on a pre-antibiotic sample) is recommended along with a UPC (if proteinuria is present) and a baseline blood pressure measurement.
- Also consider thoracic radiographs to assess cardiopulmonary status, given the vague clinical signs.
- Consider broadening the antibiotic spectrum (i.e., fluoroquinolone) as empirical treatment for bacterial prostatitis (while awaiting urine culture and sensitivity results).
- If the patient can be stabilized, castration should be considered in the future.







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.

**Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
info@SonoPath.com