



## DATE PRESENTING CLINICAL SIGNS

2/20/26

**Patient History:** 2/10/26 Presents for annual PE. No issues per owner. no coughing or exercise intolerance noted. Severe dental disease. Grade III/VI mitral murmur. Lungs wnl. Routine Blood work showed elevated liver enzymes and now wants you to do a double cavity.

## PATIENT

Pambe Ghiasi

**Current Medications:** Pimobendan 5mg 1/2 tb q 12 hours

**Labwork Results:** Labwork attached.

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

**Sedation:** Not required to complete full diagnostic ultrasound.

**Stat Report:** Declined.

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

## SPECIES

Canine

## BREED

Coton de Tulear

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### SEX

Neutered Male

### Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

### AGE

2/16/14

The prostate is borderline large with smooth margins and somewhat slightly hypoechoic parenchyma. It measures 1.26 cm in height in the sagittal view. There is a hyperechoic non-shadowing foci visualized measuring 0.25 cm x 0.57 cm, and occasional pinpoint mineralizations in the parenchyma.

### WEIGHT

26.3 lbs

The left kidney has a normal shape and size (5.84 cm). Overall echogenicity is slightly hyperechoic with mildly reduced corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The right kidney has a normal shape and size (5.32 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

## HOSPITAL NAME

Chadwell Animal  
Hospital

### Adrenal Glands

The left adrenal gland is normal in size measuring 0.68 cm at the cranial pole and 0.55 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

## REFERRING VET

Dr. Oliveri

The right adrenal gland is normal in size measuring 0.59 cm at the cranial pole and 0.55 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

## INVOICE

73130

### Spleen

The spleen is subjectively normal in size (1.93 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### ***Liver***

The liver is large and irregular in shape with rounded margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous somewhat poorly defined hyperechoic nodules visualized in the parenchyma, particularly in the mid left region. Examples measure 1.37 cm and 1.36 cm. There are some larger hyperechoic, more expansile nodules/mass effects, examples measure 1.46 cm x 1.8 cm and 2.81 cm x 2.54 cm. In the caudal right aspect of the liver there is an irregular, hypoechoic cystic/cavitated lesion measuring 4.36 cm x 2.93 cm.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris and there is organization and stranding of this debris into a mucocele. There is minimal surrounding inflammation and no obvious free fluid observed. The bile duct is normal/not visible. Findings are consistent with a mucocele. Consider close monitoring and initial medical management.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.47 cm. Jejunum wall measures 0.35 cm. There is mucosal speckling visualized associated with some sections of the small intestine. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

- Prominent, hypoechoic prostate with small pinpoint mineralizations and a hyperechoic foci – Correlate with age of neutering. If this patient was neutered as an adult, this could be consistent with an involuted prostate and previous prostatic disease. If this patient was neutered prior to puberty, there could be concern for an underlying neoplastic process.
- Age related changes visualized associated with both kidneys.
- Large, heterogeneous liver with ill-defined hyperechoic nodules and a right-sided irregular hypoechoic cystic/cavitated mass effect – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative

neoplasia (less likely) or other hepatopathy. The appearance of the hyperechoic nodules/small mass lesions trends toward benign lesions, although neoplastic lesions are possible. The right-sided hypoechoic lesion is more concerning, as it is irregular and slightly cystic/cavitated.

- Mature gallbladder mucocele.
- Mild small intestinal thickening with mucosal speckling – Bright mucosal speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc.. in the mucosal crypts.

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

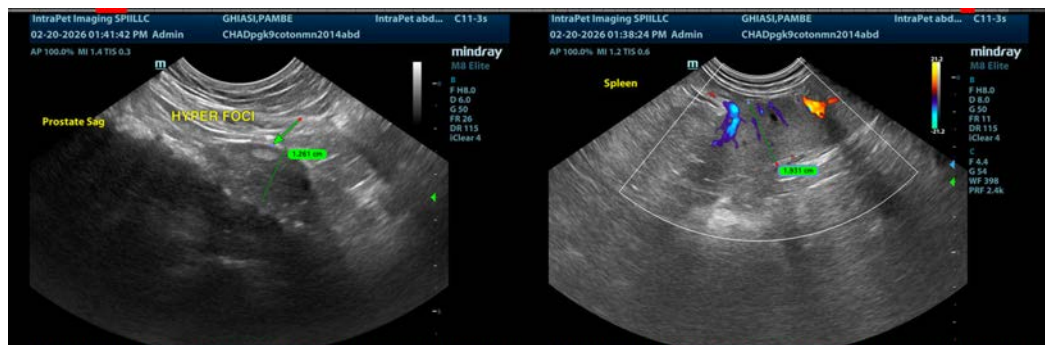
The liver is heterogeneous, large, and slightly irregular in shape with small hyperechoic nodules and larger hyperechoic nodules, which generally have a somewhat benign appearance. Of more concern is the hypoechoic lesion in the right caudal aspect of the liver, which is slightly cavitated. Recommend a fine needle aspirate for further evaluation (provided coagulation parameters are normal).

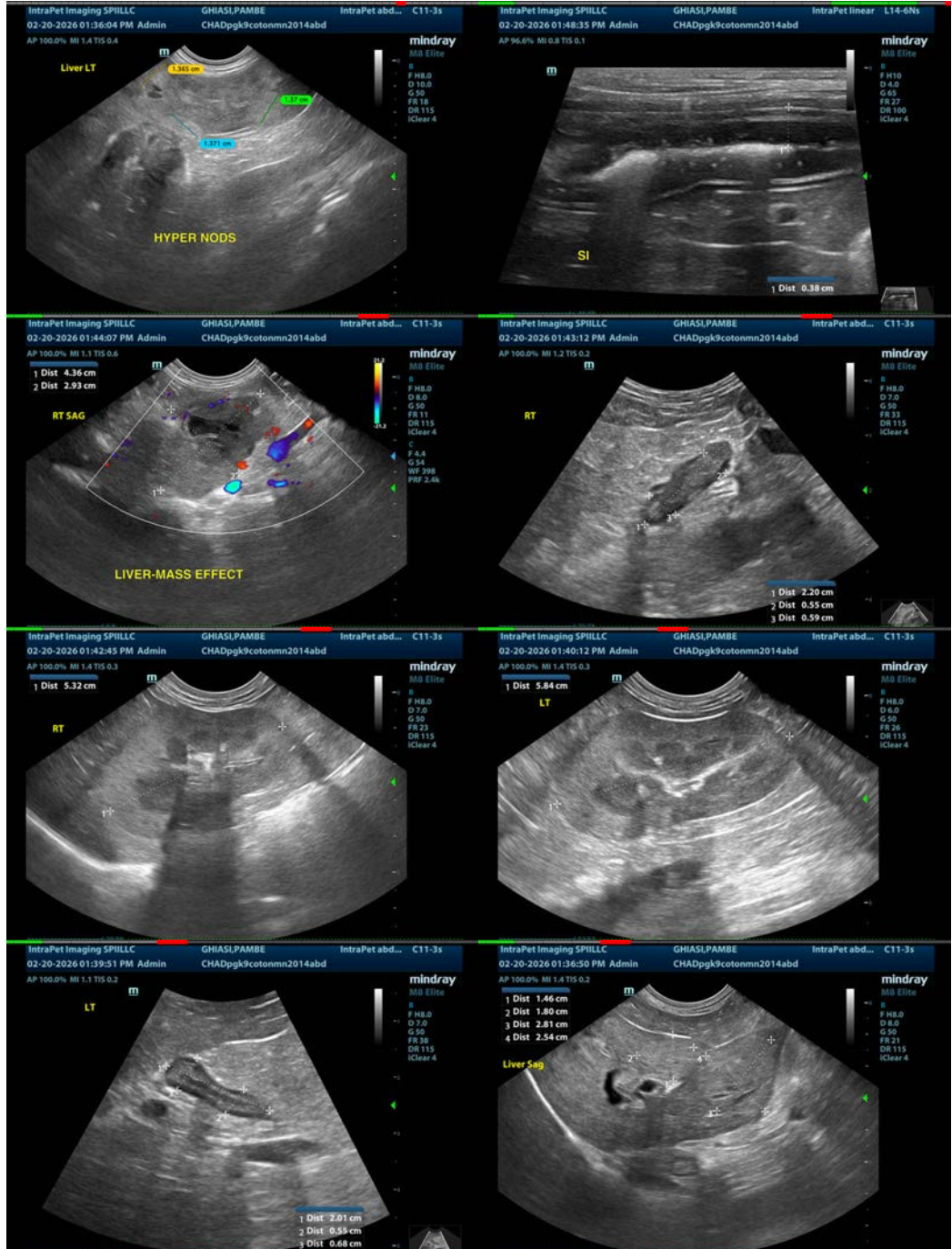
The gallbladder has the appearance of a mature gallbladder mucocele. There is minimal surrounding inflammation. Medical therapy with Ursodiol could be considered, but ultimately a cholecystectomy would likely be needed.

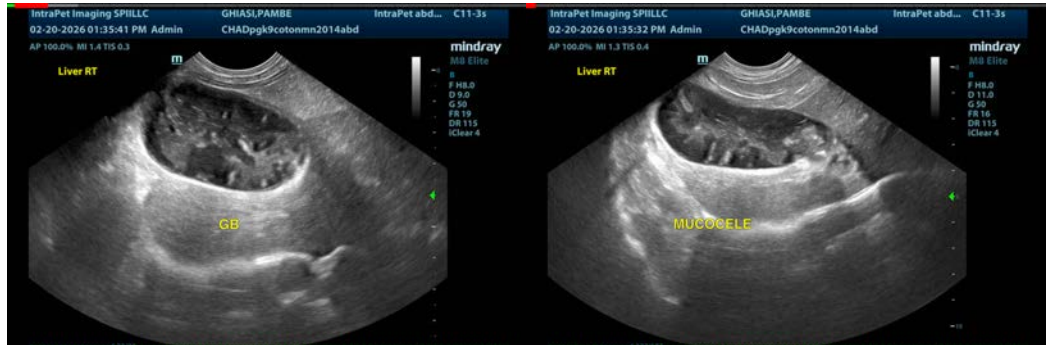
The prostate is large for a smaller dog and has some pinpoint mineralizations. Correlate this finding with the dog's age at neutering. If the patient was neutered prior to puberty, this could be concerning for a possible carcinoma, and a fine needle aspirate of the prostate should be considered.

There is mucosal speckling visualized associated with the small intestine. Correlate this finding with the patient's clinical history. Is there a history of chronic gastrointestinal symptoms? If so, further evaluation for a primary enteropathy may be warranted.

If chest radiographs are normal and surgical intervention would be considered, recommend a contrast CT scan to evaluate the hepatic masses as well as the gallbladder and prostate for consultation with a veterinary surgeon.







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.

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