

**DATE PRESENTING CLINICAL SIGNS**

10/6/2021

History of urinary incontinence, Cushing currently on Vetoryl, routine bladder scan revealed mid abdominal cavity mass possibly renal (R) or splenic in origin.

**PATIENT**

Penn Carnevale

Current Medications: Gabapentin 100mg - 1 tab PO SID, Vetoryl 30mg - 1 tab PO bid.

Lab Results: Urine Culture w/ MIC sent to IDEXX 10/3/21.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Sedation not necessary.

Stat Report: Stat report not requested by DVM.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED**

Beagle Mix

**Urinary System**

The urinary bladder is mildly distended. The wall is of appropriate thickness for the level of repletion.

Gravity-dependent mineralized sand and a few tiny cystic calculi are visualized. The region of the trigone and the visible portion of the proximal urethra are normal.

**SEX**

Male, neutered

The prostate is normal in size (0.94 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**AGE**

2007

The left kidney is normal size (5.71 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**WEIGHT**

30.5 lbs.

The right kidney is normal size (5.45 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.78 cm at cranial pole) (0.78 cm at caudal pole) (2.06 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.

**HOSPITAL NAME**

Claws N Paws AH

The right adrenal gland is mildly enlarged (0.84 cm at cranial pole) (0.78 cm at caudal pole) (1.90 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.

**REFERRING VET**

Dr. Singh

**Spleen**

The spleen is enlarged with irregular peripheral contours. A >12 cm irregular heterogeneous cavitated mass is arising from the parenchyma. In the remainder of the spleen, a few hyperechoic nodules are seen. The mesentery surrounding the mass is hyperechoic. Splenic vasculature is normal with no evidence of thrombosis.

**INVOICE**

12300

**Liver**

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and mildly heterogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of suspended echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is not distended. The gastric wall in the region of the fundus is mildly thickened (up to 0.55 cm) with retention of the normal layering pattern. The remaining gastric wall and pylorus are normal in thickness with a normal layering pattern and appropriate mural detail. The pyloric outflow tract is patent. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

### ***Pancreas***

The left limb of the pancreas is largely obscured by the splenic mass. In the region of the right limb, the parenchyma is isoechoic relative to surrounding omental fat and mottled in appearance with a few small ill-defined hypoechoic nodules. The pancreatic duct is not overtly dilated.

### ***Free Abdomen***

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

### ***Other***

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- Large splenic mass. Neoplasia (i.e., hemangiosarcoma, hemangioma) is considered likely with a lower possibility of benign pathology. Regional peritonitis is present.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Infiltrative neoplasia is also possible but considered less likely.
- Mineralized urinary bladder sand/tiny calculi.

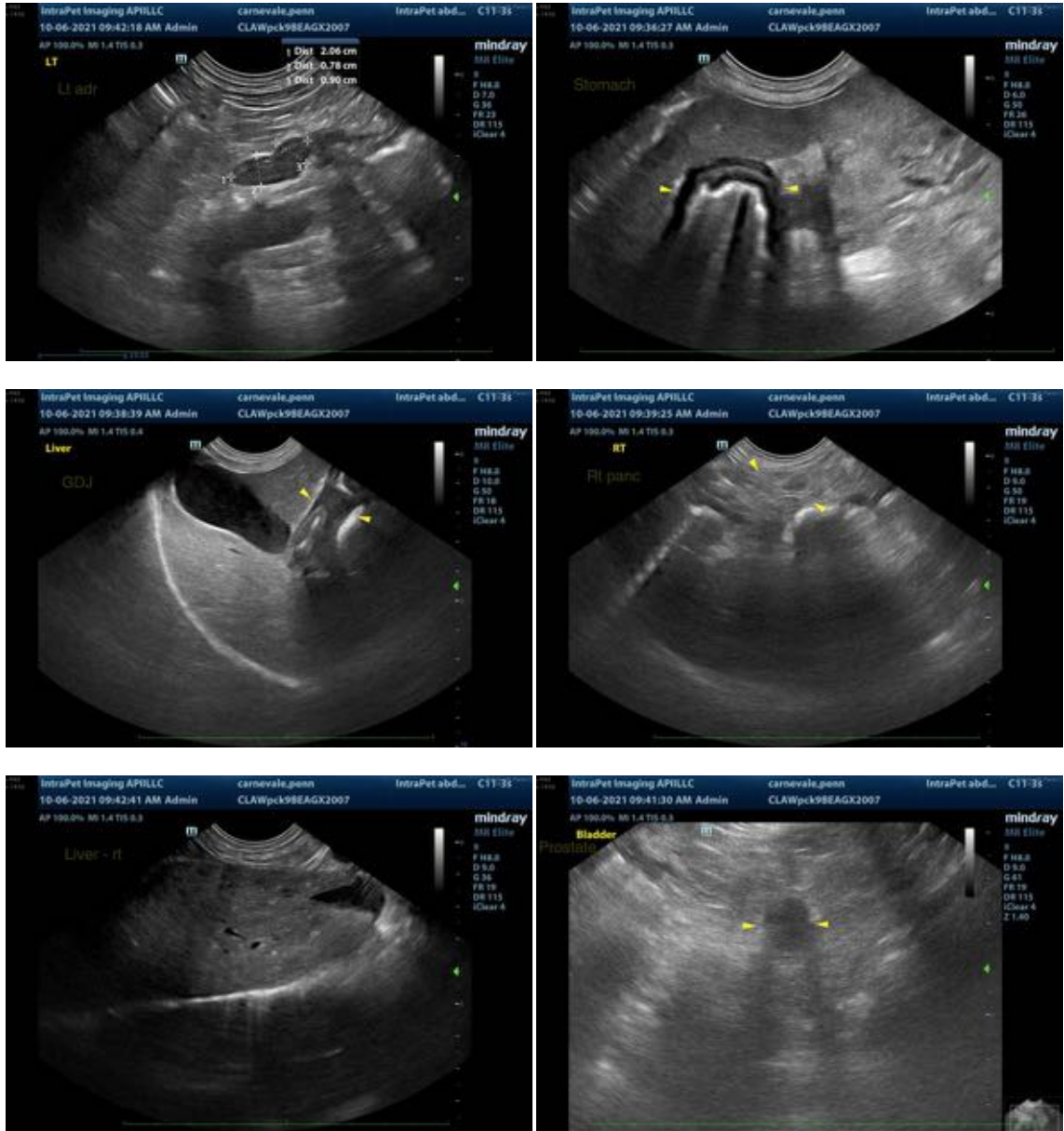
### **Secondary Findings:**

- Mild bilateral adrenomegaly, consistent with the previous diagnosis of pituitary dependent hyperadrenocorticism.
- The pancreatic changes are consistent with age-related remodeling/fibrosis with probable nodular hyperplasia +/- low-grade pancreatitis (particularly if the patient is painful in the right cranial quadrant). Pancreatic neoplasia is possible but considered unlikely.
- The mild gastric wall thickening may be a normal variant for this patient or may be secondary to an inflammatory process. Emerging neoplasia is possible but considered less likely.

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

Three-view thoracic radiographs are recommended to assess for pulmonary metastases. If there is no evidence of pulmonary metastatic disease, a splenectomy with submission of the spleen for histopathology is recommended. At least one liver biopsy should be obtained to assess for micrometastatic disease. If the patient is stable, consider a cystotomy with stone removal, analysis and culture as well.





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.

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