

**DATE PRESENTING CLINICAL SIGNS**

9/14/21

Lethargy. PU/PD. Icteric.

**PATIENT**

Gracie Crouch

Current Medications: None – admitted to hospital for IVF and treatment  
 Lab Results: Significantly elevated Alk phos, Alt, GGt, Bilirubin 13.6, Glucose 350.  
 Date of Previous IntraPet Ultrasound: No previous  
 Sedation: IV utilized for AUS  
 Stat Report: not requested

**SPECIES**

Canine

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

Beagle mix

**Urinary System**

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.

**SEX**

Female, spayed

The left kidney is normal size (6.43 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. Renal vasculature is normal.

**AGE**

2010

The right kidney is normal size (5.85 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. Renal vasculature is normal.

**WEIGHT**

42.9 lbs.

**Adrenal Glands**

The left adrenal gland is normal size (0.56 cm at cranial pole) (0.60 cm at caudal pole) (1.63 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.

**INTERPRETED BY**

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

The right adrenal gland is normal size (0.64 cm at cranial pole) (0.64 cm at caudal pole) (2.57 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**

Festival VC

**Spleen**

The spleen is normal in size (1.68 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. Beron

**Liver**

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and subtly mottled 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 distended. The wall is normal in thickness. A small amount of aggregated echogenic debris is suspended within the lumen. The cystic and common bile ducts are dilated. The common bile duct measures up to 1.07 cm in diameter. It is difficult to definitively follow to the level of the duodenal papilla due to the presence of a mass in this region. There is no obvious evidence of choledocoliths.

**INVOICE**

12089

**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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 of the pancreas is enlarged with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and heterogeneous in appearance. The pancreatic duct is mildly dilated (0.27 cm in diameter). Surrounding mesentery is hyperechoic. See also *Other*.

### ***Free Abdomen***

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

### ***Other***

A 2.35 x 2.12 cm hypoechoic, irregular mass is observed adjacent to the proximal duodenum and right limb of the pancreas. Surrounding mesentery is hyperechoic.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- The pancreatic changes could be consistent with severe pancreatitis and/or neoplasia.
- The origin of the mass in the right cranial quadrant is unclear but may be arising from the pancreas, duodenum, common bile duct, mesentery, other. It is believed to be causing a partial extrahepatic bile duct obstruction. Neoplasia is the primary differential with a lower possibility of an inflammatory focus or granuloma. Regional peritonitis is present.
- Non-specific diffuse hepatopathy. Differentials include inflammatory/immune mediated disease, infiltrative neoplasia, hepatotoxicosis (i.e., copper), reactive hepatopathy, other.

### **Secondary Findings:**

- Minor bilateral age-related renal changes.

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If an aggressive approach is desired, consider an abdominal CT scan or abdominal exploratory with pancreatic and liver biopsies and assessment of the biliary tract for patency can be considered. Referral to a board-certified veterinary surgeon is recommended if surgery is to be pursued due to the potential for perioperative complications.
- If a more conservative approach is desired, consider aggressive treatment for pancreatitis/cholangitis/cholangiohepatitis with close monitoring of the patient's liver values, particularly the total bilirubin. If the total bilirubin continues to increase and/or the patient is not clinically improving, an abdominal exploratory should be considered.





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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