

**DATE PRESENTING CLINICAL SIGNS**

9/2/21

History: S: eating, drinking and acting normally, no s/c/v/d. PE: heart auscults with a normal rhythm and a grade 2-3 heart murmur, BCS 3/5, moist pink mm, CRT <2 seconds, OU nuclear sclerosis, right lateral thorax 2 and 3 cm soft sc masses, and a third 1.5 cm soft sc mass on the right flank.

**PATIENT**

Eddie Perry

Current Medications: Spironolactone 1/4 25mg SID, Fish Oil 1/2 pump SID, Benazepril 2.5 mg PO BID, Pimobendan 1.25 mg PO BID, Ursodiol 250 mg tablets 1/4 PO QD, Vitamin E and Revolution.

Lab Results: 4-9-2021 CBC: wnl. Chem: ALK Phos 247 (5-131) H, CK 55 (59-895) L. 5-4-2021 SPG 1.029 PH 5.5, rest normal,

**SPECIES**

Canine

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: 4-8-2021, 2-16-2021, 12-23-2020, 11-16-2020.

Sedation: Sedation not required for scan.

Stat Report: STAT report not requested by the veterinarian.

**BREED**

Papillon

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

Male, neutered

The urinary bladder is mildly distended. The wall is normal in thickness with a smooth mucosal surface. A scant amount of echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone is normal.

**AGE**

8/26/2006

The prostate is not definitively visualized due to its pelvic location.

**WEIGHT**

8.5 lbs.

The left kidney is normal in size (3.20 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is minimal loss of corticomedullary distinction. A small cortical cyst is observed at the cranial aspect. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (3.42 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. A small cortical cyst is observed at the cranial aspect. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands****INTERPRETED BY**

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The left adrenal gland is borderline enlarged (0.59 cm at cranial pole) (0.54 cm at caudal pole) (1.67 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**

Fullerton AH

The right adrenal gland is enlarged (3.01 x 2.03 cm) and irregular with a mass effect throughout the gland. The parenchyma is heterogeneous with loss of glandular detail. A few small cavitated areas are suspected. There is no obvious evidence of vascular invasion.

**REFERRING VET**

Dr. Baker

**Spleen****INVOICE**

12014

The spleen is normal in size (1.04 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.

**Liver**

The liver is subjectively normal in size with normal contours and structure. The parenchyma is isoechoic relative to the spleen and slightly heterogeneous in appearance. A few small (<1 cm) hypoechoic nodules are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder is distended. A large amount of aggregated echogenic suspended and adherent sludge is observed within the lumen, some of which is stranding. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. 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 visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### ***Free Abdomen***

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

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- Right adrenal mass effect. This is a new finding. The changes are concerning for a neoplastic process (i.e., adenoma, adenocarcinoma, pheochromocytoma) with a lower possibility of benign pathology (i.e., nodular hyperplasia). Borderline left adrenomegaly.

### **Secondary Findings:**

- The hepatic parenchymal changes trend toward benign age-related pathology. However, the hypoechoic nodules could be consistent with metastatic disease. Histopathology would be necessary to differentiate benign vs malignant change.
- Excessive gallbladder sludge- similar to the previous sonogram.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral age-related changes with dystrophic mineralization.

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If further evaluation of the right adrenal mass effect is desired, consider the following:
  1. Low-dose dexamethasone suppression test.
  2. Urine/blood catecholamine levels.
  3. Baseline blood pressure measurement.
  4. +/- referral to a board-certified veterinary surgeon to discuss right adrenalectomy. An abdominal CT scan would be useful in pre-surgical planning. It should be noted that perioperative complications are common with adrenalectomies.





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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