

**DATE PRESENTING CLINICAL SIGNS**

12/28/2021

History: Presenting Complaint: Panting; Stumbling; Yelping. Date: 12-27-2021 Notes: History of arthritis in hips and stifles. Also has knuckling over problem/neurologic deficits in right hind and mild ataxia in both hind limbs. Recently his breath has started smelling very bad; he appears nauseated at times and is very picky about his food. Owners have had to change food; he no longer wants to eat kibble. Assessment: r/o arthritis in hind limbs; neurologic deficits; DM, disco spondylosis, other neurologic disorder; neoplasia (eg abdominal; splenic vs liver vs lymphoma vs other)  
Plan: Radiographs; +/- abdominal ultrasound.

**PATIENT**

Tugs McFadden

**SPECIES**

Canine

**BREED**

Chow Mixed Breed

**SEX**

Neutered Male

**AGE**

12/27/2009

**WEIGHT**

58.8 Lb.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
Internal Medicine)

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

**HOSPITAL NAME**

Animal Emergency  
Hospital

**REFERRING VET**

Dr. Martinoli

**INVOICE**

10074

Current Medications: Buprenex, Cerenia.

Radiographs: Abdomen 2 View-Poor detail in cranial mid abdomen near stomach on left side; no evidence of obstruction.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

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

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A small amount of suspended echogenic debris is observed within the lumen. 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 prostate is normal in size (1.34 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (7.01 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. 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 (6.94 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is enlarged with a mass effect (1.65 cm at cranial pole) (1.53 cm at caudal pole) (3.82 cm in length); and an irregular shape. The parenchyma is heterogenous in appearance with a few cystic areas. There is loss of glandular detail. Invasion of the phrenicoabdominal vein is suspected.

The right adrenal gland is enlarged (1.11 cm at cranial pole) (1.64 cm at caudal pole) (4.07 cm in length); with a slightly irregular shape and swollen peripheral contours. The parenchyma is somewhat heterogenous with a few tiny cystic areas. There is loss of glandular detail. Surrounding vasculature appears normal.

**Spleen**

The spleen is normal in size (1.71 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. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of gravity-dependent echogenic debris is observed within the lumen. The cystic and common bile ducts are normal.

### **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 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 or overt infiltrative disease is noted.

### **Pancreas**

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### **Free Abdomen**

There is no evidence of free fluid. A 2.88 x 1.49 cm cystic lymph node is observed in the cranial abdomen.

### **Other**

A brief echocardiogram (free of charge) reveals no evidence of pericardial effusion.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Severe bilateral adrenomegaly with a mass effect on the left side and suspected invasion of the phrenicoabdominal vein. Differentials include bilateral neoplasia (i.e., adenocarcinoma, pheochromocytoma), unilateral neoplasia (left-sided) with nodular hyperplasia in the contralateral gland, or bilateral nodular hyperplasia (less likely given the suspected vascular invasion on the left side).

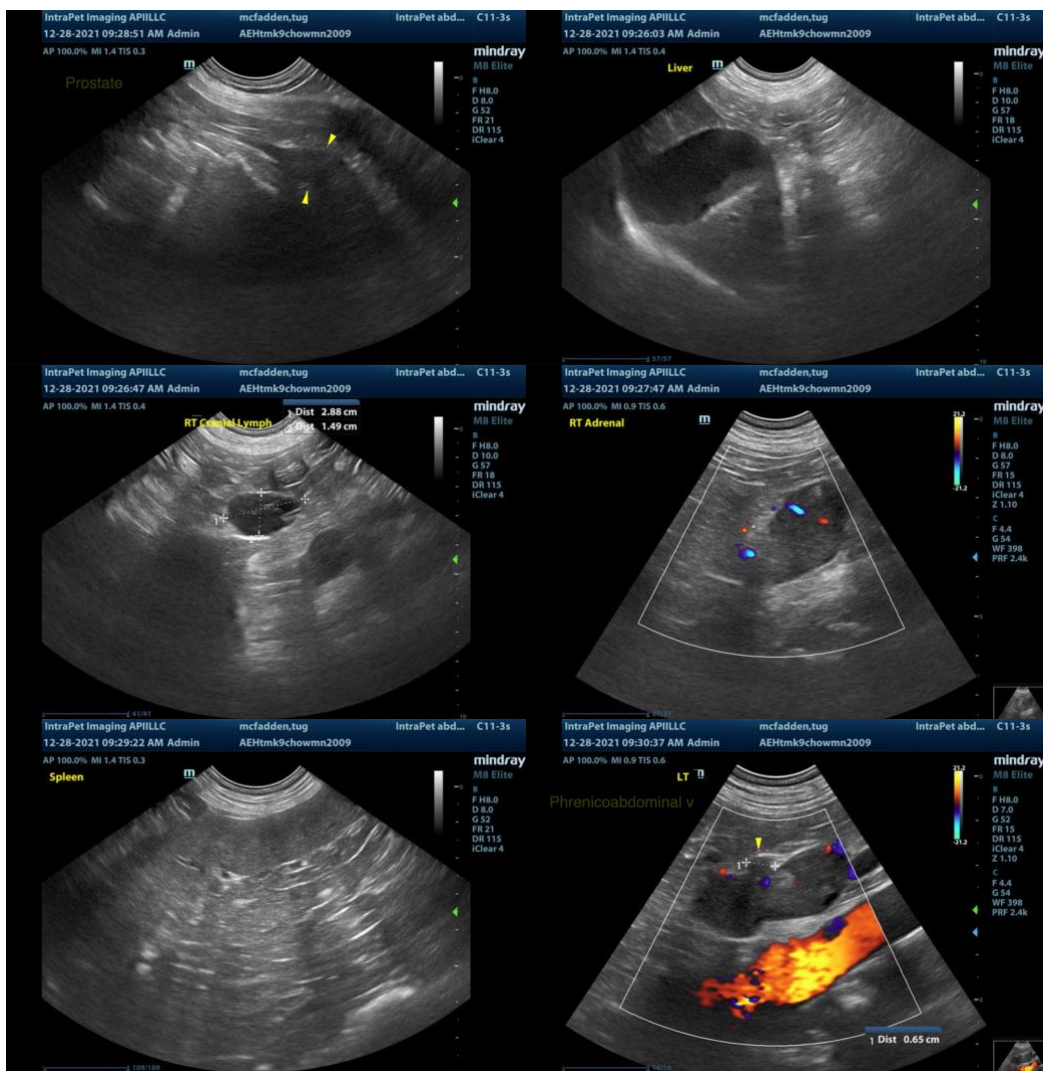
### **Secondary Findings**

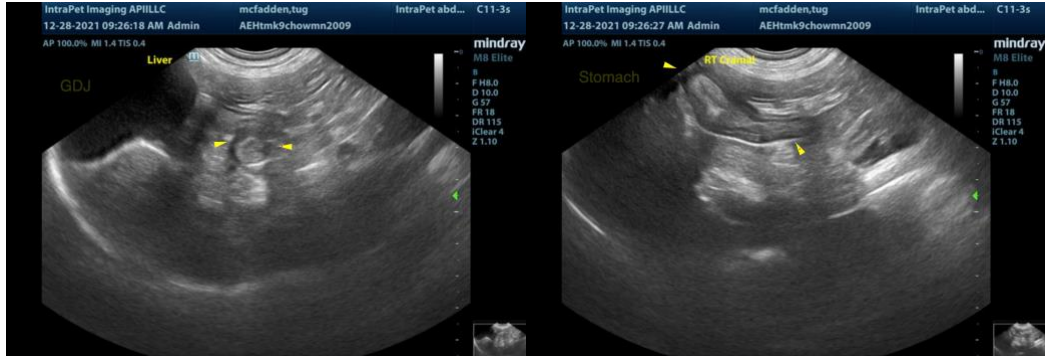
- Bilateral age-related renal changes with dystrophic mineralization.
- The significance of the cystic lymph node in the cranial abdomen is unclear. It may represent reactive lymphadenitis, lymphoid hyperplasia or infiltrative neoplasia.

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- To further evaluate the adrenal glands, consider the following:
  1. Low-dexamethasone suppression test
  2. Urine/blood catecholamine levels

3. Baseline blood measurement to assess for systemic hypertension
  4. +/- abdominal CT scan
- A consultation with a board-certified neurologist may also be warranted to further evaluate the patient's neuro deficits.





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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