

**DATE PRESENTING CLINICAL SIGNS**

9/1/2021

History: Gagging when she eats.

PATIENT

Tipsy Mayo

Current Medications: No current medications.
 Lab Results: Not provided by the veterinarian.
 Radiographs: Not provided by the veterinarian.
 Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
 Sedation: Sedation not required for scan.
 Stat Report: STAT report not requested by the veterinarian.

SPECIES

Canine

BREED

Shih Tzu

SEX

Female, intact

AGE

9/3/2005

WEIGHT

9.1 lbs.

INTERPRETED BY

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

HOSPITAL NAME

Padonia VH

REFERRING VET

Dr. Youssef

INVOICE

11999

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 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.

The left kidney is normal size (3.50 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

The right kidney is normal in size (3.54 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.71 cm at cranial pole) (0.74 cm at caudal pole) (1.96 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.

The right adrenal gland is enlarged (2.24 cm in length) (1.11 cm in width) with an irregular shape and a mass effect primarily involving the cranial to mid aspect. The parenchyma in this region is heterogeneous with loss of glandular detail. There is no obvious evidence of vascular invasion. The mesentery surrounding the gland is mildly hyperechoic.

Spleen

The spleen is normal in size (0.68 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.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen with minor changes consistent with age-related remodeling. No focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is normal in thickness. A large amount of aggregated echogenic suspended sludge in a stellate pattern is observed within the lumen. 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 prominent with slightly irregular peripheral contours. The parenchyma is hyperechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. There is no evidence of peripancreatic effusion.

Free Abdomen

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

Thorax

A limited evaluation of the thorax reveals no obvious masses or pleural effusion. There is no obvious evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Right adrenal mass effect with mild left adrenomegaly. Differentials include bilateral nodular hyperplasia, more pronounced on the right side, right adrenal tumor with left sided hyperplasia, other.
- The gallbladder changes are consistent with an emerging mucocele.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

Secondary Findings:

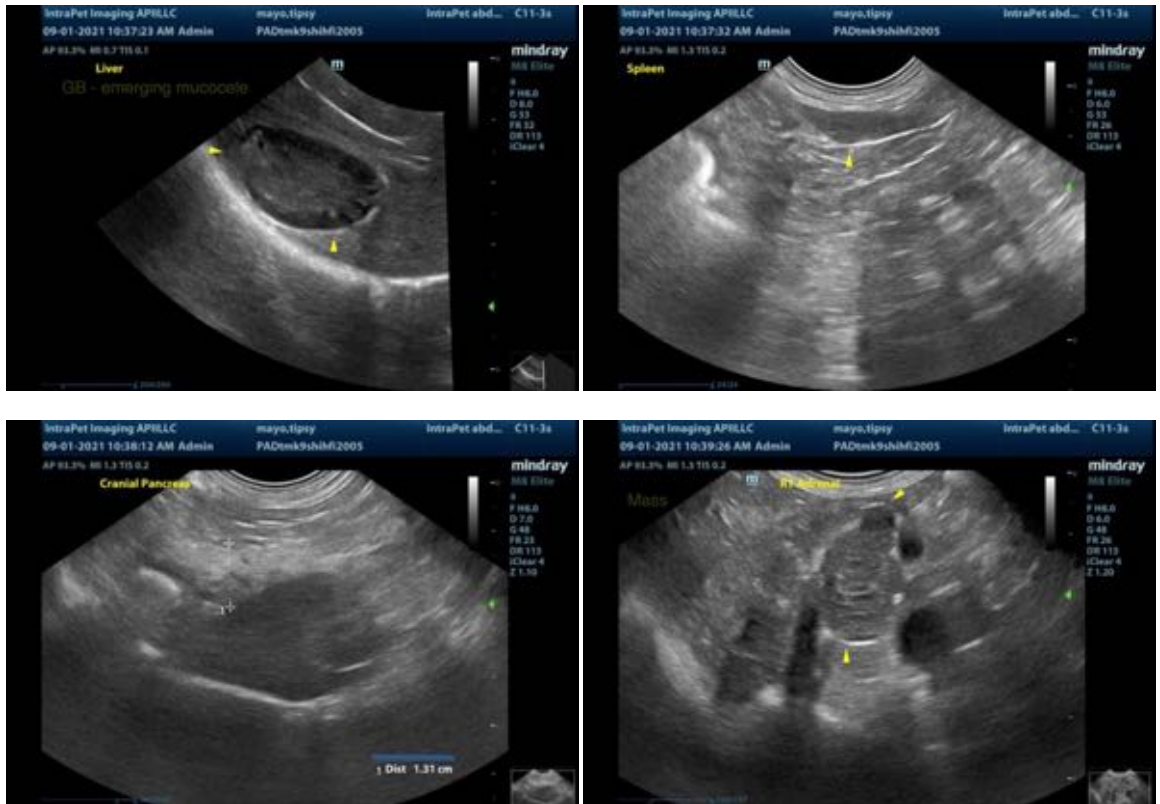
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral age-related renal changes with dystrophic mineralization.

*An obvious cause for the patient's clinical signs is not identified in this study. Considerations include pharyngeal/esophageal disease, gastric or small intestinal disease, low-grade pancreatitis, other.

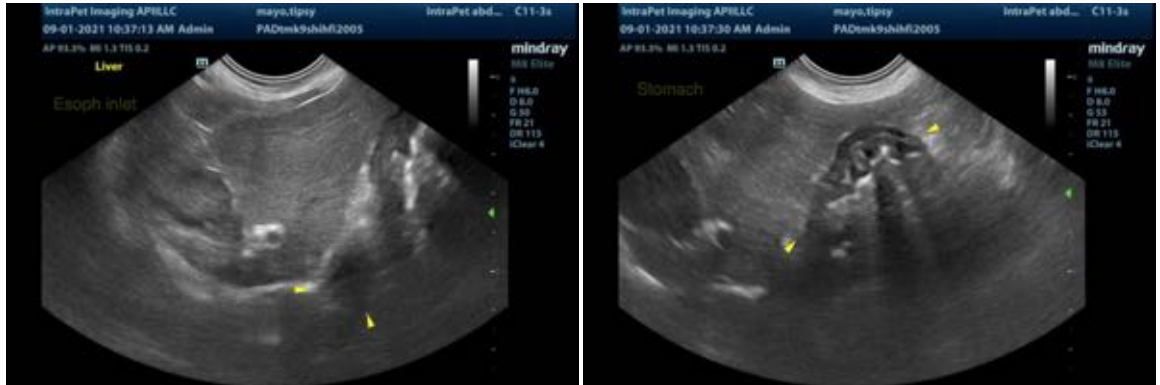
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Baseline labwork including a CBC chemistry panel, urinalysis and T4 is recommended if not already performed.
- Given the right adrenal changes, three-view thoracic radiographs are recommended to assess for pulmonary metastatic disease. To further assess for a functional adrenal tumor, consider a low-dose dexamethasone suppression test and a urine/blood catecholamine levels. A baseline blood pressure measurement is also recommended.
- Other diagnostic considerations to further investigate the gagging include:
 1. Sedated pharyngeal examination.

2. Malabsorption panel including serum cobalamin, folate, TLI and PLI
 3. +/- upper GI endoscopy with gastrointestinal biopsies
- Given the gallbladder changes, the following can be considered:
 1. Prophylactic cholecystectomy or...
 2. Medical management with Ursodiol therapy. If medical therapy is pursued, serial sonographic monitoring (i.e., every 4-6 weeks) of the gallbladder is recommended to assess for progression. It should be noted that gallbladder mucocele can rupture, resulting in bile/septic peritonitis.







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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)
Andrea.nicastro@sonopath.com