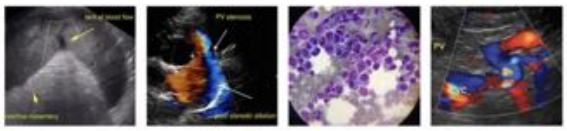


PATIENT

Pete Fraylick

SPECIES

Canine

BREED

Silky Terrier

SEX

Male Neutered

AGE

3/8/2010

WEIGHT

6.74 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

MP Blue Pearl ER

REFERRING VET

Graham

INVOICE

12364

DATE

3.9.23

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Presenting history: "Pete" is a 13yo MN Silkie Terrier presenting as a DT for seizures.
O reports P began coughing/gagging "croup cough" at 8am, followed by collapse and 20-30s episode of shaking and copious urination. P was extremely lethargic for 1-2hrs after this episode, then drank water but refused food. Identical episode at 1215. O reports husband noted similar episode evening 03.01.23
rDVM noted elevated liver enzymes, hepatomegaly +/- mass, +/- enlarged lymph nodes in armpits & near spleen. Noted new "significant" heart murmur +/- heart failure or pneumonia.
No E today, decreased yesterday. UTD on vax/prev. No C/S/V/D

PE:
Mentation: Quiet, alert and responsive.
Hydration: Adequately hydrated
Eyes, Ears, Nose: No ocular discharge OU, lenticular sclerosis OU; no nasal discharge and airflow present bilaterally; mild debris AU; no significant abnormalities noted
Oral Cavity: Moderate-severe dental tartar and calculus; mucous membranes are pink and moist; CRT 2 sec; no evidence of petechiation or ulceration; no foreign object or mass appreciated
Cardiovascular: Grade 4/6 heart murmur, pulses were strong and synchronous.
Respiratory: Tachypneic with mild effort, mild crackles on left side
Neurologic: Appropriate mentation, normal CNN, no pain elicited on manipulation and palpation of neck and spine; no CP deficits
Gastrointestinal/Urogenital: Soft and non-painful abdomen with no evidence of mass or organomegaly on palpation
Rectal: Normal stool color and consistency with no mass or foreign material evident; anal glands soft and small, not expressed
Peripheral Lymph Nodes: Small, soft, smooth, and symmetrical
Integument: Swelling over right lateral thorax, Hair coat in good condition for age and breed, no ectoparasites or dermatitis noted, mild dorsal scale
Musculoskeletal: BCS 6/9, adequate musculature, no evidence of weakness or lameness during ambulation; no obvious orthopedic abnormalities noted (complete orthopedic exam not performed).

Abnormal lab-work values: Lab-work from rDVM not available for review, per rDVM ALT 333, ALP 266, GGT 18, Na 161 (H)

Current Medications: furosemide, Cerenia

Radiographic Findings
Orthogonal radiographs of the thorax and abdomen are presented for evaluation. Six radiographs are available for review.

The cardiac silhouette is enlarged with predominantly left atrial enlargement. This is characterized by a left atrial wedge on the lateral projection and a double opacity sign on the ventrodorsal projection. There is mild pulmonary venous distension. Dense interstitial to alveolar infiltrate is noted at the perihilar region and extending caudodorsally. The pleural space is normal. The visible mediastinal space is unremarkable. The diaphragm is intact. There are multiple sites of mild degenerative change at the thoracic spine and bilateral shoulder joints.

The hepatic silhouette extends well beyond the costal arch with a rounded lobar margin. The portion of the spleen seen is unremarkable. The stomach contains a moderate amount of heterogeneous soft tissue opaque material. Similar material is noted throughout the small intestines which remains within normal limits for size. The colon is unremarkable. The bilateral kidneys are incompletely seen but there is impression of normal size and shape. The urinary bladder is unremarkable. There is maintenance of

appropriate peritoneal serosal detail. There is intervertebral disk space collapse at L1 – L2 with smoothly marginated spondylosis deformans.

Assessment:
1) Cardiomegaly with predominantly left atrial enlargement, equivocal pulmonary venous distension and interstitial to alveolar infiltrate is most consistent with left-sided congestive heart failure. Ruptured chordae tendineae is not excluded. ECG and echocardiography may be helpful for further characterization. A diuretic treatment trial and repeated radiography is recommended.
2) Generalized hepatomegaly is a non-specific finding with uncertain significance. Differentials to consider include hyperplasia, steroid hepatopathy, congestion, lipidosis, diabetes mellitus, inflammatory hepatopathies, and neoplasia. Correlate with clinical biochemical findings and consider ultrasound examination with biopsy/fine needle aspirate if indicated.
3) Heterogeneous soft tissue opaque material in the stomach most consistent with recent meal ingestion although the possibility of foreign material is not excluded. Correlate with clinical history and consider repeated radiography after a period of fasting, if clinically indicated.
4) Multiple sites of degenerative spinal skeletal change, likely secondary to intervertebral disk disease. Correlate with neurological examination findings.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is 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 1-2 cm, are normal.

The prostate is normal in size (1.09 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 (4.70 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. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.18 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 (3.06 x 1.89 cm) with a mass effect. It is irregular in shape and mostly hyperechoic, with a 3.14 x 1.15 cm hypoechoic to heterogenous nodule within the mass itself. There is no obvious evidence of vascular or left renal invasion.

The right adrenal gland is in normal size (1.04 cm at cranial pole) (0.52 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.24 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 0.49 cm cystic nodule is observed near the lateral aspect. In addition, a 0.79 cm multi-septated cystic lesion is observed at the caudomedial aspect.

Liver
The liver is enlarged with swollen, slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely mottled in appearance. A 3.61 x 2.63 cm irregular hyperechoic to heterogenous mass is observed at the caudal aspect, approximately mid-liver. In addition, a 3.11 cm irregular hyperechoic to heterogenous mass is observed in the left lateral lobe. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic debris is observed within the lumen (most of which is gravity dependent, some of which is suspended). 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 ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas
The right limb of the pancreas is normal in size 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
The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other
Several ringdown lesions are observed within the thorax.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Left adrenal mass. Neoplasia (i.e., adenoma, adenocarcinoma, pheochromocytoma) is suspected, with a lower possibility of excessive benign nodular hyperplasia. There is no obvious evidence of vascular or renal invasion.

- The hepatic masses could be consistent with a neoplastic process (i.e., adenomas, adenocarcinomas). However, a benign process (i.e., regenerative nodules) cannot be excluded. The diffuse hepatic parenchymal changes are nonspecific and may be secondary to age-related remodeling, regenerative nodular hyperplasia, inflammatory disease, fibrosis, infiltrative neoplasia (less likely) or other hepatopathy. Correlation with the patient's liver values is recommended.

- The ringdown lesions are consistent with pulmonary parenchymal disease, as described in the thoracic radiographs.

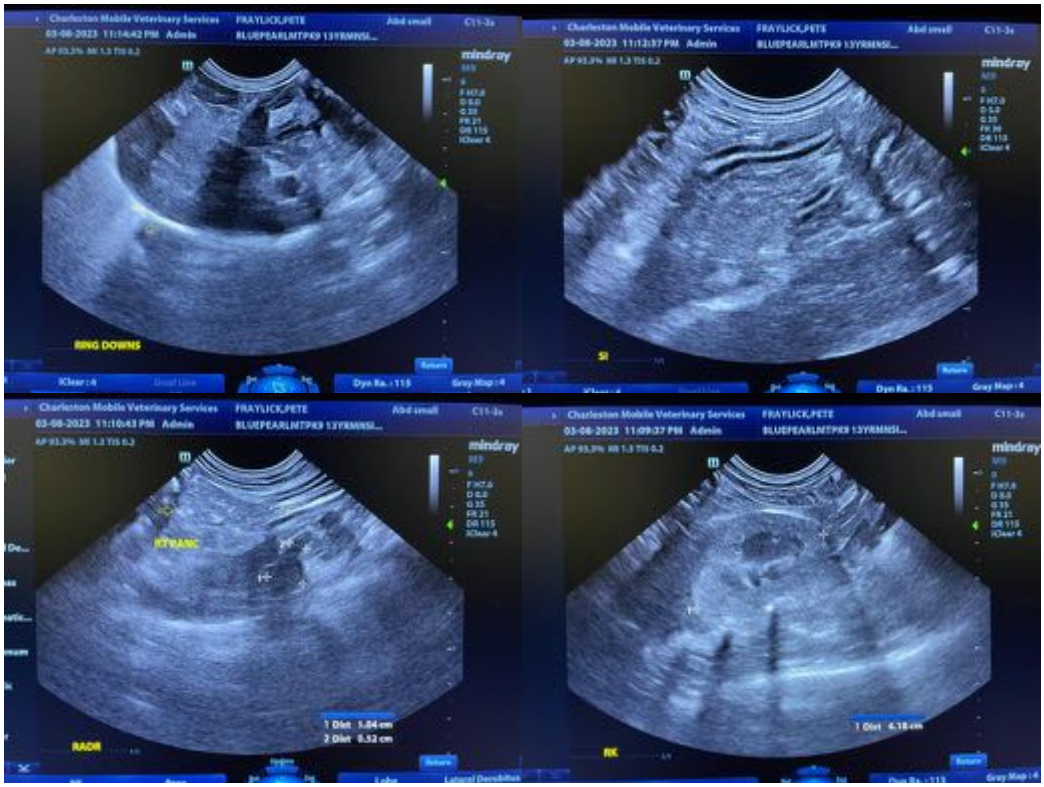
Secondary Findings

- Bilateral chronic renal changes with dystrophic mineralization

- Minor age-related pancreatic remodeling
- The cystic splenic lesions may represent benign cysts or emerging vascular tumors. A benign process is favored.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- To further investigate the left adrenal mass, consider further testing for a functional tumor (i.e., low-dose dexamethasone suppression test, urine/blood catecholamine levels).
- To further investigate the hepatic masses, hepatic tissue sampling (i.e., fine-needle aspirates or biopsies) can be considered if clotting status is appropriate.
- Given the elevated blood pressure, serial monitoring is recommended to determine if persistent hypertension is present. If so, initiation of an anti-hypertension agent (i.e., amlodipine) may be warranted.
- Further recommendations should be based on the echocardiogram report.

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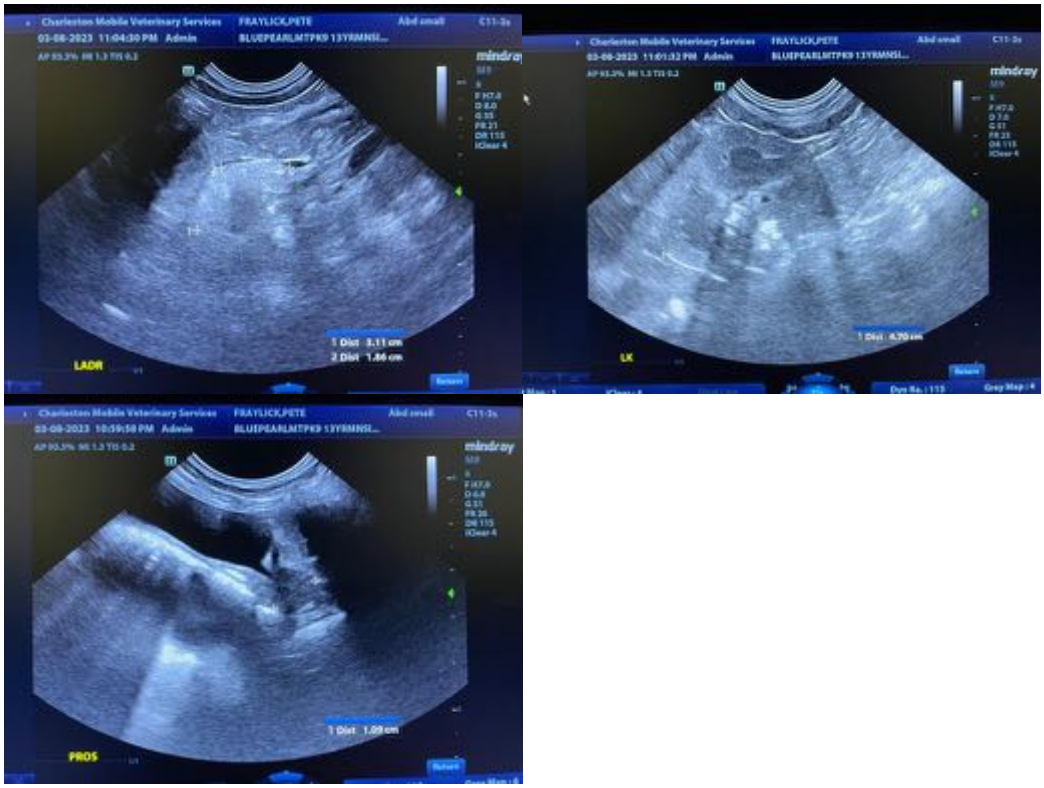

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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