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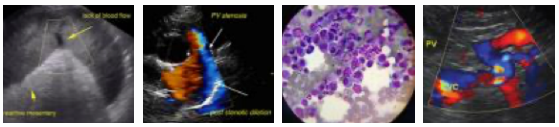


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT

Tuffy Kemper

SPECIES

Canine

BREED

West Highland White Terrier

SEX

Male, neutered

AGE

13 Yrs.

WEIGHT

18 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh

HOSPITAL NAME

West Hills AH

REFERRING VET

Dr. Yuko Eguchi-Coe

DATE

11/2/21

INVOICE

12473

PRESENTING CLINICAL SIGNS

History: ALK elevation 517, anorexia, increased drinking, fever of unknown origin Current Medications Amoxi 100mg 1 tab PO q 8 hours
Abnormal PE/Chem/CBC/UA Results: ALK 517/. Elevated SDMA 18, CBC reveals lymphocytosis. Pro BNP normal, USG 1.012. No proteinuria. Inactive sediment. Normal T4. 4DX negative, Fecal negative for ova and Giardia.

Radiology report shows unremarkable thorax and abdomen.

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 prostate is normal in size (0.59 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 (5.14 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.

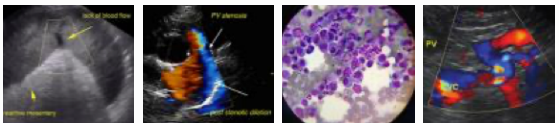
The right kidney is normal in size (5.37 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.39 cm at cranial pole) (0.51 cm at caudal pole) (1.58 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 normal size (0.82 cm at cranial pole) (0.53 cm at caudal pole) (2.59 cm in length) with a normal shape and smooth peripheral contours. A 0.64 x 0.63 cm irregular hyperechoic nodule is observed at the cranial pole. The remaining glandular echogenicity and detail are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen



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The spleen is subjectively normal in size. A 1.27 x 1.13 cm heterogeneous vascular nodule is observed at the caudomedial aspect. The lesion causes capsular expansion. The remaining peripheral margins are curvilinear. The remaining parenchyma is homogeneous. Splenic vasculature is normal with no evidence of thrombosis.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen. A few small cystic lesions are observed, some of which are septated. The remaining parenchyma is homogeneous in appearance. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are mostly anechoic. 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 segmentally dilated with chyme. 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

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other

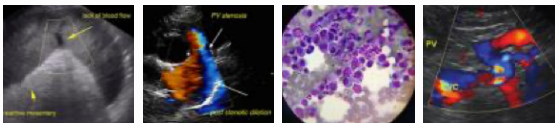
A brief echocardiogram reveals no evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The splenic nodule is concerning for an early neoplastic process (i.e., sarcoma, round cell tumor). However, benign pathology cannot be completely excluded.

Secondary Findings:



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- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The right adrenal nodule trends toward the benign (i.e. a focus of nodular hyperplasia) with a lower possibility of an emerging neoplastic process.
- Bilateral age-related renal changes with dystrophic mineralization and trace right pyelectasia.
- Small hepatic cysts, likely benign.

*An obvious cause for the patient's fever is not identified in this study. The elevated ALP is likely secondary to benign, age-related pathology.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

To further evaluate for fever of unknown origin, consider the following:

1. Three-view thoracic radiographs to assess for occult neoplasia/pneumonia.
2. A thorough orthopedic and neurologic evaluation.
3. Urine culture and sensitivity, preferably on a pre-antibiotic sample.
4. +/- a comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab) is recommended. https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease/.
5. +/- echocardiogram to assess for valvular endocarditis.
6. If the above diagnostics are inconclusive and the patient's fever persists, consider more advanced testing (i.e., arthrocentesis, CSF tap).

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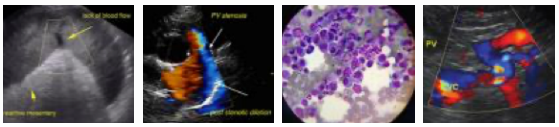

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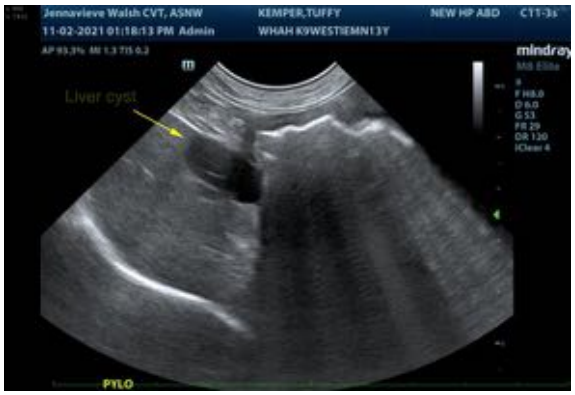

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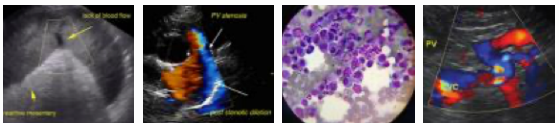

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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