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Clinical Sonography & Telecytology
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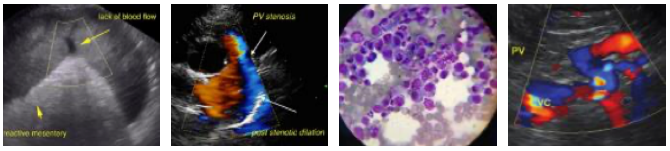


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Buella Jehl-Tirado

SPECIES

Canine

BREED

Terrier Mix

SEX

Female, spayed

AGE

12 Yrs. 10 months

WEIGHT

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Andover AH

REFERRING VET

Dr. Hummel

INVOICE

12537

DATE

11/16/21

PRESENTING CLINICAL SIGNS

History: Elevated ALT and SAP. Current meds: Denamarin 225 SID, Clavamox 250 BID
Abnormal PE/Chem/CBC/UA Results: 10/10/21: ALT 150, SAP 1176 11/11/21: ALT 233, SAP 849

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 in size (5.66 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. The cortex is slightly heterogeneous in appearance. A 1.33 x 1.26 cm multi-septated cystic structure with echogenic material or solid appearing tissue is observed in the region of the corticomedullary junction. 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.

The right kidney is normal in size (5.31 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 borderline enlarged (0.53 cm at cranial pole) (0.71 cm at caudal pole) (2.34 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 (1.36 cm at cranial pole) (0.80 cm at caudal pole) (2.64 cm in length) with an irregular shape. A 1.33 x 1.26 cm hyperechoic to heterogeneous nodule is observed at the cranial pole. The glandular echogenicity and detail at the caudal pole are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

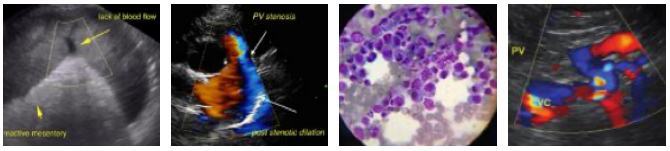
Spleen

The spleen is normal in size (1.60 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is slightly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely mottled in appearance. On the right side, a 5.57 cm irregular, heterogeneous mass effect is observed adjacent to the diaphragm. Hyperechoic areas are observed within the mass. In addition, a 3 cm hypoechoic to slightly heterogeneous mass is observed on the left side. The lesion causes mild capsular expansion. A few cystic areas are observed at the tip of the left lateral lobe. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

Gastrointestinal



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The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta and soft shadowing material. 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

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Hepatic masses. Neoplasia (i.e., adenocarcinoma, adenoma, round cell tumors) is considered likely with a lower possibility of benign pathology (i.e., regenerative nodular hyperplasia).
- The right adrenal nodule could be consistent with benign nodular hyperplasia. Alternatively, emerging neoplasia may be present.
- The multi-septated cystic structure in the left kidney may represent a benign complex cyst. Alternatively, a neoplastic process (i.e., metastatic) or abscess may be present. There is also bilateral age-related renal pathology with dystrophic mineralization.

Secondary Findings:

- The pancreatic changes are most consistent with age-related remodeling/fibrosis.
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Fine needle aspirates of the hepatic masses can be considered if they are accessible and if clotting status is appropriate. 25-gauge needles should be used. It should be noted, however, that cytology results from primary hepatic masses are often inconclusive, therefore, if a definitive diagnosis is desired, surgical biopsies +/- removals may be necessary to get a definitive diagnosis. An abdominal CT scan would be useful in pre-surgical planning. Given that there are multiple masses, it is unclear whether complete surgical removal is possible.

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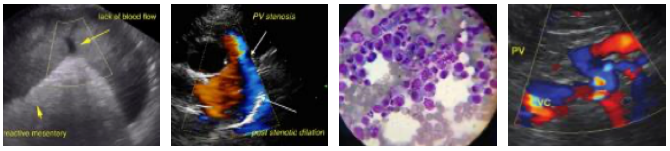

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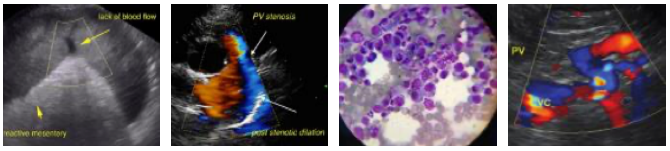

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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