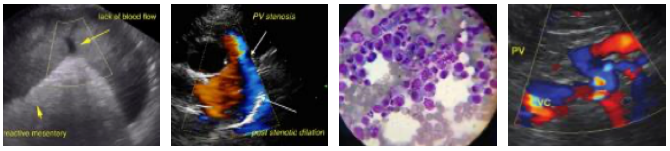
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Bonnie Ortiz

SPECIES
Canine

BREED
Chihuahua

SEX
Female, spayed

AGE
13 Yrs.

WEIGHT
4 lbs.

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

IMAGING PERFORMED BY
Dr. Ferrer

HOSPITAL NAME
Paseos VC

REFERRING VET
Dr. Biello

INVOICE
14832

DATE
4/24/23

PRESENTING CLINICAL SIGNS

History: Presented for an abdominal ultrasound for evaluation of recent hypoglycemia. The patient presented for lethargy, lethargy, and decreased appetite According to the owner, the patient has not eaten well for the past 3-4 days They have noted increased sneezing as well
Abnormal PE/Chem/CBC/UA Results: Chemistry: Hypoglycemia, verified with glucometer at 93 mg/dl Radiographs: Thoracic views: no pulmonary congestion, mild cardiomegaly. Lateral abdomen: Marked spondylosis.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone is normal.

The left kidney is normal size (2.95 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Several non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney is normal size (2.98 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Several non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.40 cm at cranial pole) (0.45 cm at caudal pole) (1.37 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.

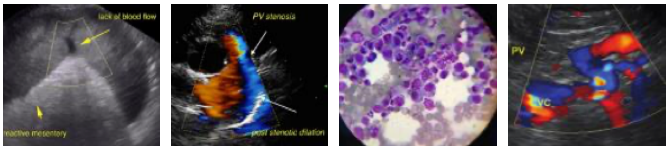
The right adrenal gland is normal size (0.53 cm at cranial pole) (0.46 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (0.63 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 0.28 cm hypoechoic nodule is observed near the hilus. Splenic vasculature is normal.

Liver

The liver is normal to slightly prominent in size with mildly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogeneous in appearance. 2 cystic lesions are observed on the right side, one measuring 0.81 cm in diameter, the other measuring 0.42 cm in diameter. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate to large amount of aggregated echogenic partially dependent sludge as well as some adhered sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.



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Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally fluid 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 wall of the transverse colon is mildly thickened (up to 0.39 cm) with retention of the normal layering pattern. The remaining 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 hyperechoic 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 obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

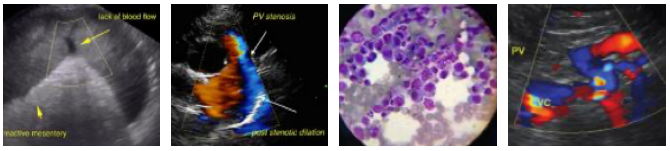
- An obvious cause for the patient's hypoglycemia is not definitively identified in this study. Considerations include insulinoma, hepatic dysfunction, hypoadrenocorticism, sepsis (less likely), other.

Secondary Findings:

- The gallbladder changes could be consistent with an emerging mucocele, cholestasis, or less likely, fasting.
- Bilateral, chronic renal changes with non-obstructive nephrolithiasis.
- The splenic nodule trends toward the benign (i.e., focus of lymphoid hyperplasia, extramedullary hematopoiesis or similar) with a lower possibility of an emerging tumor.
- 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. The cystic hepatic lesions trend toward the benign with a lower possibility of emerging vascular tumors.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The colonic wall thickening may be a normal variant for this patient or may be secondary to inflammation, hypertrophy or less likely, emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the hypoglycemia, consider the following:



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1. An insulin-to-glucose ratio. The glucose should be <60 mg/dl when blood is drawn for the insulin level.
2. Resting cortisol level +/- a full ACTH stimulation test to assess for hypoadrenocorticism.
3. Pre- and post-prandial serum bile acids to assess hepatic function.

- Regarding the gallbladder changes, consider initiation of Ursodiol therapy with serial sonographic monitoring (i.e., every 6-8 weeks) to assess for progression to a fully formed mucocele. Alternatively, consider simply rechecking an ultrasound in 4 weeks, preferably 2 hours post-small meal. If the gallbladder changes are similar to today's scan, Ursodiol therapy can be initiated at that time.

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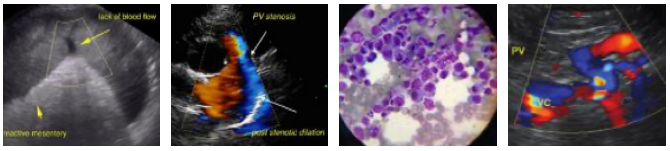

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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