

PATIENT PRESENTING CLINICAL SIGNS

Sara Sherwin
SPECIES History: Intermittent vomiting and diarrhea for 2+ weeks. Patient has a history of pancreatitis. Patient usually vomits bile and stools are soft serve consistency. Painful on ultrasound upper right quadrant- Not doing well since 8/4/2023- LABs attached from then.

Canine
BREED Abnormal PE/Chem/CBC/UA Results: Physical Findings QAR, dehydrated, lethargic. Mild fever. Abdomen bloated and difficult to palpate. ALB 4.2 2.5 4.4 g/dL..... ALP 406 * H 20.0 150.0 U/L..... ALT 101 10.0 118.0 U/L..... AMY 1268 * H 200.0 1200.0 U/L..... TBIL 0.4 0.1 0.6 mg/dL..... BUN 13 7.0 25.0 mg/dL..... CA 11.1 8.6 11.8 mg/dL..... PHOS 4.1 2.9 6.6 mg/dL..... CRE 1.0 0.3 1.4 mg/dL..... GLU 116 * H 60.0 110.0 mg/d..... L NA+ 135 * L 138.0 160.0 mmol/L..... K+ 3.5 * L 3.7 5.8 mmol/L..... NEU 12.98 H 3.0 12.0 10⁹/l..... RBC 9.15 H 5.5 8.5 10¹²/l..... HCT 59.51 H 37.0 55.0 %.....

Female Spayed

AGE ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

13 years
WEIGHT **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 and the proximal urethra, visible to a depth of 1-2 cm, are normal.

7.3 kg
INTERPRETED BY The left kidney is normal in size (4.33 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

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

The right kidney is normal in size (4.84 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Loetitia Saint-
Jacques,
LVT

Adrenal Glands
The left adrenal gland is enlarged (0.80 cm at cranial pole) (0.91 cm at caudal pole) with a slightly irregular shape. A 0.43 x 0.43 cm hyperechoic nodule is observed at the caudal pole. The remaining parenchyma is mildly heterogenous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

HOSPITAL NAME

Alpine AH

The right adrenal gland is enlarged (1.76 cm at cranial pole) (0.68 cm at caudal pole) (2.71 cm in length) with an irregular shape. A 1.62 x 1.40 cm hyperechoic-to-heterogenous nodule is observed at the cranial pole. Glandular echogenicity and detail at the caudal pole are normal. Surrounding vasculature appears normal.

REFERRING VET

Emily Campbell

Spleen
The spleen is normal in size (1.03 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Several irregular hypoechoic nodules are observed throughout the organ (the largest measuring 1.45 cm in diameter). Splenic vasculature is normal.

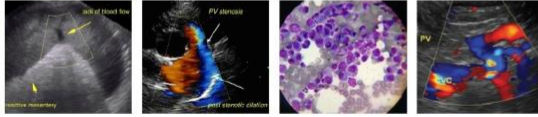
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Liver
The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

DATE

8.15.23



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SPECIES

Canine

BREED

Pomeranian

SEX

Female Spayed

AGE

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The gall bladder is distended. The wall is normal in thickness. A moderate amount of echogenic-to-mineralized debris is observed within the lumen (most of which is gravity-dependent, some of which is suspended). The distal common bile duct, at the level of the duodenal papilla, is dilated (up to 0.65 cm). The wall is mildly thickened. Luminal contents appear anechoic.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The pancreas is diffusely prominent-to-enlarged with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and mottled in appearance. The pancreatic duct is not overtly dilated. Surrounding mesentery is hyperechoic.

Free Abdomen

Trace free fluid is suspected. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

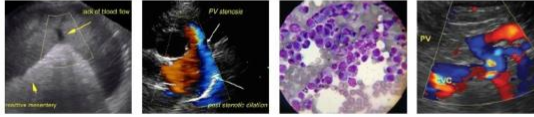
- The pancreatic changes are consistent with chronic active/acute-on-chronic pancreatitis with adjacent peritonitis.
- Mild gastric ileus, likely secondary to pancreatitis

Secondary Findings

- The hepatic parenchymal changes are most consistent with a benign hepatopathy. Vacuolar hepatopathy (i.e., idiopathic/endocrine) is suspected with a lower possibility of inflammatory disease, infiltrative neoplasia or other hepatopathies.
- Gall bladder debris, non-mucocele. Dilation of the distal common bile duct without obvious evidence of an intraluminal obstruction. An extrahepatic bile duct obstruction (i.e., stricture, inflammation secondary to pancreatitis) is possible.
- Mild bilateral chronic renal changes
- Bilateral adrenomegaly. The adrenal nodules could be consistent with adenoma, adenocarcinoma, pheochromocytomas, other.
- The splenic nodules are most consistent with myelolipomas with a lower possibility of emerging neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Continued aggressive supportive care for pancreatitis is recommended, including fluid therapy, gastric protectants, pain medication, +/- fresh frozen plasma. If available, hyperbaric oxygen



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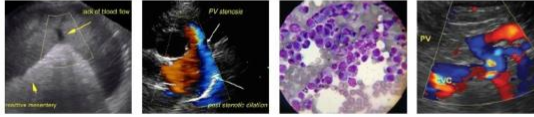
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therapy may be beneficial in reducing pancreatic inflammation. Also consider nutritional support (i.e., via a temporary feeding tube) to help maintain enterocyte health.

- Close monitoring of the patient's total bilirubin and liver values is recommended, due to the concern for bile duct obstruction. If values continue to increase, a repeat ultrasound should be considered.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.





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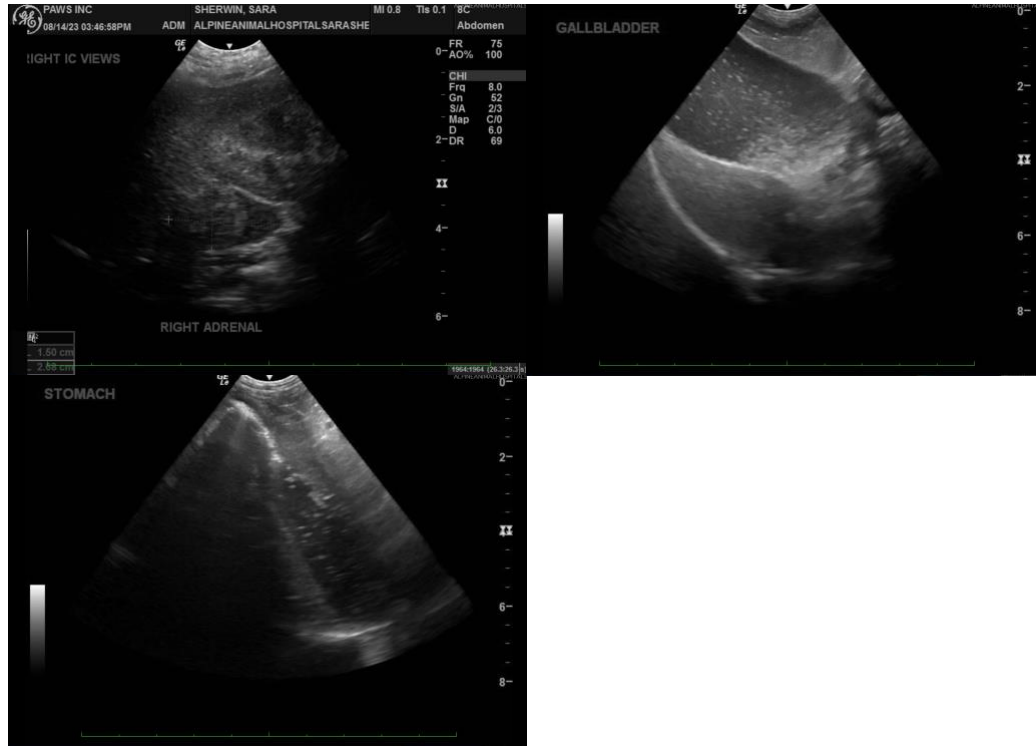
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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