

PATIENT PRESENTING CLINICAL SIGNS

Sebastian Olmeda

History: Presented as a referral for an abdominal ultrasound. Patient was presented for second opinion at Alejandrino Animal Hospital 9/30/22. Started with persistent vomiting episodes 3 days prior to visit. Hasn't eaten since then. No vaccines or preventives up to date. Diet is Royal Canin. No diarrhea noted.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: 9/30/22 PE showed: Marked periodontal dz (severe), chest auscults normal but there's increased BV sounds bilaterally, abdomen slightly distended and tense. Pet missing left hindlimb. Rest wnl. Lab-work 9/30/22: CBC: MPV 14.6 fL (8.7-13.2) CHEM: SDMA: 18 ug/dL (0-14) ALT: 237 U/L (10-125) ALKP: 1682 U/L (23-212)

BREED

Poodle

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX

Neutered Male

The **urinary bladder** wall is normal in thickness. The mucosal surface in the region of the apex is mildly irregular. The bladder lumen is mildly distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

AGE

10 years

The **prostate** is normal in size (0.78 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

WEIGHT

16.4 lbs

The **left kidney** is normal size (4.66 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The **right kidney** is normal size (4.53 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.32 cm at cranial pole) (0.67 cm at caudal pole) (2.03 cm in length); with a slightly prominent caudal pole and smooth curvilinear peripheral contours; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Dr. Gabriel Ferrer
DVM

The **right adrenal gland** is normal size (0.42 cm at cranial pole) (0.46 cm at caudal pole) (2.18 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.

HOSPITAL NAME

Paseos VC

Spleen

The **spleen** is normal in size (1.06 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few, small, ill-defined myelolipomas are visualized. Splenic vasculature is normal.

REFERRING VET

Dra. Marilyn Dávila

Liver

The **liver** is subjectively normal in size with normal curvilinear 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.

INVOICE

11774

The **gall bladder** lumen is distended. The wall is normal in thickness. A small to moderate amount of aggregated, echogenic, partially dependent to suspended debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

DATE

10.5.22

Gastrointestinal

The **gastric lumen** is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract appears patent. The small intestinal lumen is not dilated. The proximal duodenal wall is mildly thickened (up to 0.35 cm) with retention of the normal layering pattern. There is evidence of mucosal fogging. The remaining small intestines are normal in thickness with a normal layering pattern and appropriate mural detail. Discrete masses are not identified. The ileocecal junction and colonic wall are normal. The colonic lumen contains granular-appearing fecal material. There is no obvious evidence of an obstructive pattern.

Pancreas

The **pancreas** is diffusely enlarged with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and mottled in appearance. No distinct focal lesions are observed. The mesentery effacing the serosal surface is hyperechoic. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

There is questionable trace ascites in the cranial abdomen. The abdominal **lymph nodes** are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Moderate to severe acute pancreatitis with regional peritonitis.

Secondary Findings

- 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.
- Gall bladder debris/sludge, non-mucocele
- Bilateral degenerative renal changes
- The mild left adrenomegaly may be a normal variant for this patient or may represent early hyperplastic change.
- The duodenal changes are most consistent with an inflammatory process, possibly secondary to pancreatitis or primary gastrointestinal disease (i.e., inflammatory bowel disease). Correlation with the patient's clinical history is recommended.

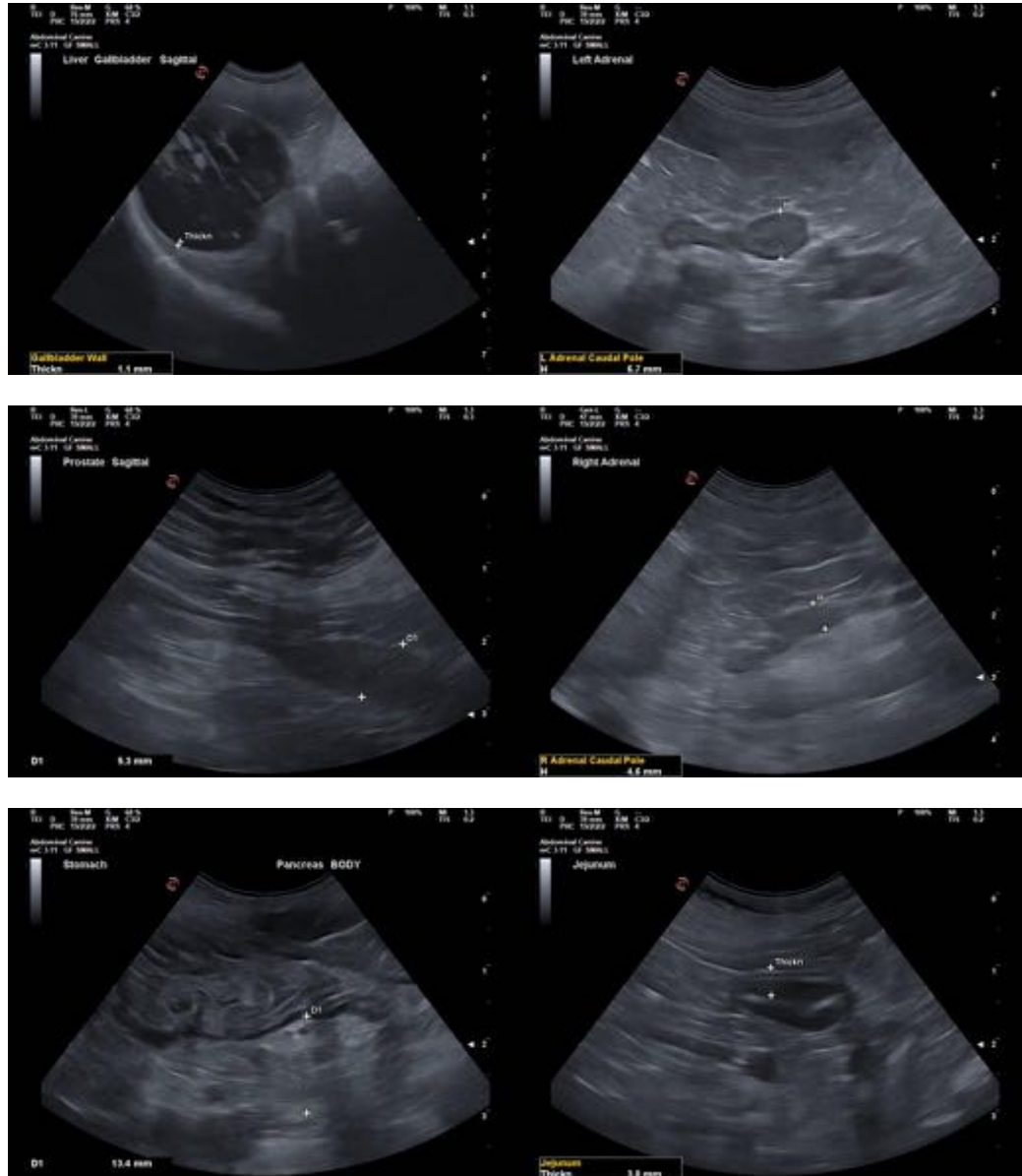
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

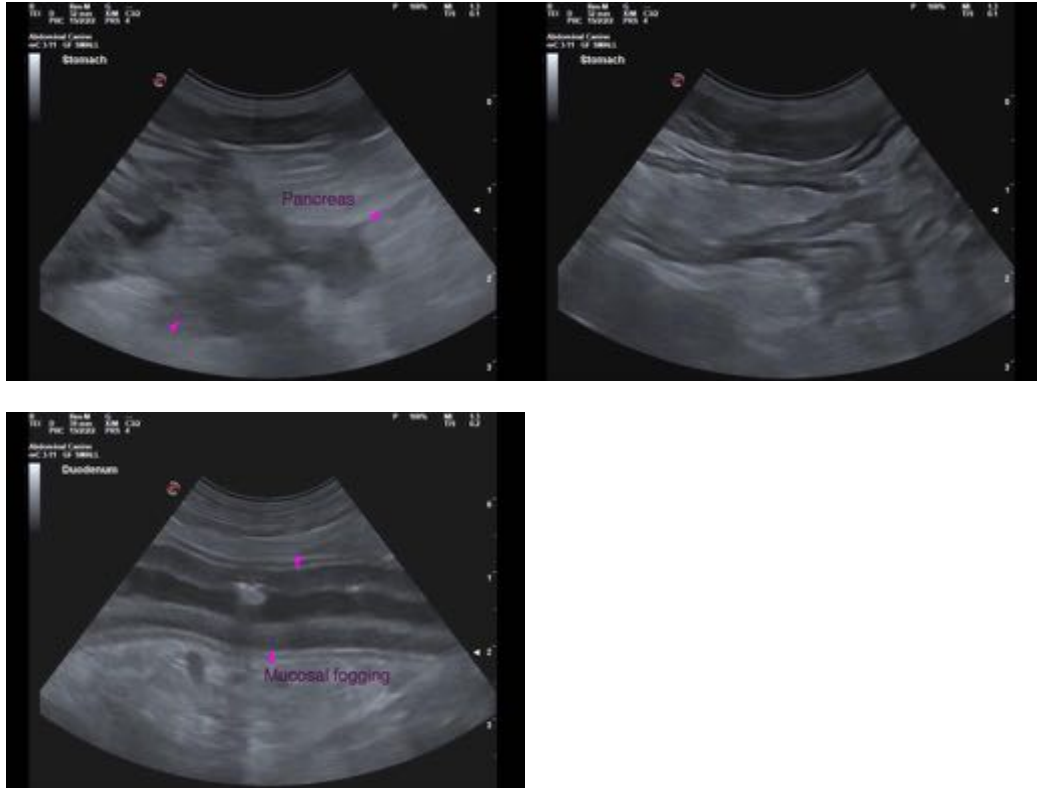
Supportive care for pancreatitis is recommended including IV fluid therapy, gastric protectants, antiemetics, pain medication as needed, +/- fresh frozen plasma. Consider initiation of trickle feeding as soon as the patient will tolerate it, as this will help to maintain enterocyte health.

Thoracic radiographs are recommended to assess cardiopulmonary status, particularly given the potential adverse effects of pancreatitis on the lungs.

Serial sonographic monitoring (i.e., daily) of the pancreas is recommended to assess for the development of abscesses, which can occur in moderate to severe cases.

Serial monitoring of the patient's liver and kidney values is also recommended to assess for deterioration of metabolic functions.





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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