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Clinical Sonography & Telecytology
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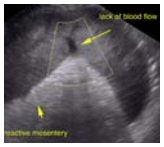
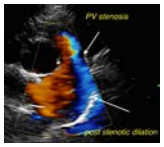
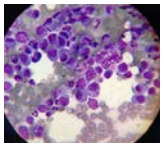
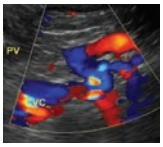

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1-800-838-4268 info@sonopath.com

PATIENT
Gemma Rodriguez

SPECIES
Canine

BREED
Pit Bull Terrier

SEX
Spayed Female

AGE
11 Years

WEIGHT
N/A

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Westwood Regional

REFERRING VET
Dr. Taylor McConnell

INVOICE
39798

DATE
7/22/22

PRESENTING CLINICAL SIGNS

Vomiting and diarrhea for the last 2weeks. R/O hepatopathy, hyperadrenocorticism, toxin, vs. other. No meds given at RDVM.
Abnormal PE/Chem/CBC/UA Results: K+ 3.9, Cl. 120, ALT 142, ALP 237.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** is well distended with anechoic contents. The wall is smooth and regular. No abnormalities are noted with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

Uterine stump: A scant amount of fluid is noted within the lumen of the uterine stump. No abnormalities are noted with the walls.

Kidneys

The **left** kidney measures 6.57 cm. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Multiple mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. Blood flow is within normal limits. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 7.23 cm. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Multiple mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. Blood flow is within normal limits. The surrounding mesentery is not hyperechoic.

Aortic bifurcation/trifurcation No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.65 cm at the cranial pole, 0.72 cm at the caudal pole and 3.08 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.76 cm at the cranial pole, 0.64 cm at the caudal pole and 2.11 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

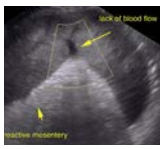
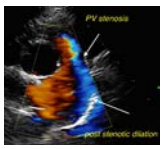
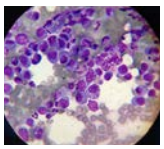
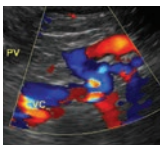
Spleen

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

There are no obvious signs of hepatomegaly and its borders are smooth and sharp. The liver's echotexture is very mildly granular or coarse, albeit diffusely. It is within normal limits in echogenicity (i.e., it is hypoechoic to the spleen). Focal lesions are not observed and no abnormalities are observed with the hepatic vessels.

The **gallbladder** (GB) wall is within normal limits in thickness and echogenicity. A small to moderate amount of free floating, gravity-dependent and inspissated echogenic material is present within the GB. A few nodules of inspissated sludge are noted within the GB. They do not cast a shadow choleliths are

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SPECIES
Canine

BREED
Pit Bull Terrier

SEX
Spayed Female

AGE
11 Years

WEIGHT
N/A

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not evident). The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

Gastrointestinal

A large amount of gas and a moderate amount of ingesta are present within the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. However, the mesentery surrounding the stomach is mildly to moderately hyperechoic. Comments cannot be made regarding peristalsis due to panting artifact.

The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. Gas, ingesta and fluid are present within the lumen of the small intestines. Abnormally dilated loops of bowel are not observed. Obvious signs of a foreign body are not visualized.

The colonic wall is thickened (0.21-0.26 cm). Mural detail is conserved, however, the submucosa is more prominent. Gas and semi-formed stools are present within the colon.

Pancreas

No overt abnormalities are observed with the architecture, contours, echogenicity or echotexture of the pancreas. There is no evidence of hyperechogenicity of the surrounding mesentery, i.e., signs of active pancreatitis are not present.

Other

Lymph nodes No abnormalities are observed

Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- **Gastrointestinal (GI) tract**: Delayed gastric emptying is suspected if Gemma was fasted. Abnormalities are not observed with the GI tract other than the hyperechoic mesentery surrounding the stomach and the mildly thickened colon, its prominent submucosa, as well as the large amount of gas, fluid and ingesta in the GI tract. The changes are attributed to inflammation secondary to chronic vomiting and diarrhea, however, an underlying chronic enteropathy (e.g., fibre responsive diarrhea, IBD, dysbiosis, etc.) cannot be excluded. Signs of neoplasia or a foreign body are not evident.

- **Liver:** A reactive hepatopathy secondary to a systemic illness (chronic vomiting and diarrhea) is suspected. Obvious signs of hepatic disease are not noted.

- **Gallbladder:** Gallbladder sludge is often clinically insignificant, however, some dogs may show clinical signs of gastroesophageal reflux disease (GERD), including vomiting, pica, etc. Therefore, obtaining a history regarding signs of GERD from the client is suggested. Treatment with an anti-acid or a proton pump inhibitor may be required depending on the patient's history. It does not appear severe enough to warrant treatment with ursodeoxycholic acid, however this will depend on Gemma's history.

- **Kidneys**: Mineralization due to mild degenerative changes are suspected. No major abnormalities are observed.
- **Adrenal glands**: The cranial pole of the right gland is at the high end of the normal reference range, which may be due to hyperplasia caused by stress.

- **Uterine stump**: A small amount of anechoic fluid is present in the lumen of the uterus.

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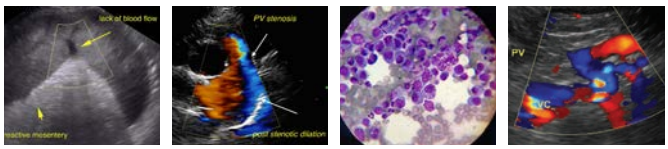

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Review of current diet (raw meat diet), i.e. *Campylobacter* spp, *Clostridium* spp., etc., as well as possible dietary indiscretion.

Deworm, (e.g., fenbendazole), even if receiving monthly heartworm prevention.

A clay based paste, containing montmorillonite and a synbiotic, may be administered during episodes of acute diarrhea.

Supplementation with psyllium (soluble fibre) may be added to Gemma's current diet. Another option is to feed a diet high in soluble fibre, such as Hill's Biome, Purina EN Fibre Response.

Small, frequent meals for 10-14 days

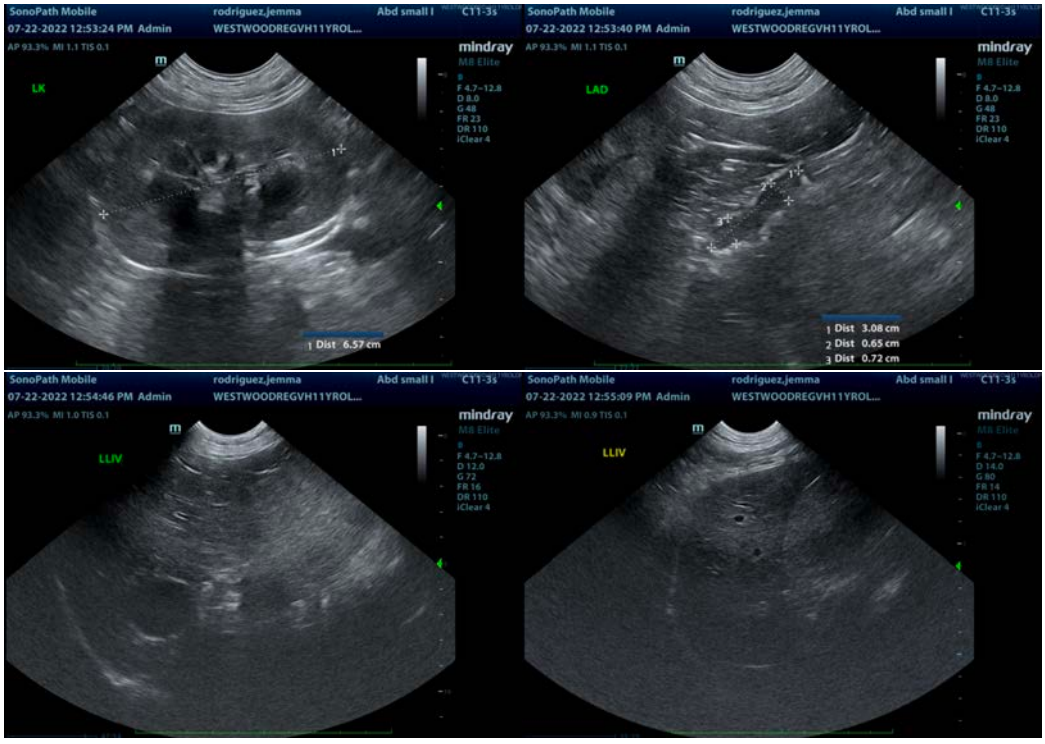
Obtain a history regarding signs of GERD and pica

If signs of GERD, 10-14 day trial with famotidine or omeprazole (0.7-1 mg/kg PO **q12h**)

+/- Baseline cortisol to exclude hypoadrenocorticism *IF* Gemma has a chronic, waxing and waning history of GI signs or if lethargy develops.

May require a diet trial in the future if clinical signs persist.

Urinalysis, +/- urine culture due to fluid in uterine stump. Most likely clinically insignificant, however, "reflux" can occur if suffering from urinary tract infections. May be prudent to have clients monitor for vaginal discharge.



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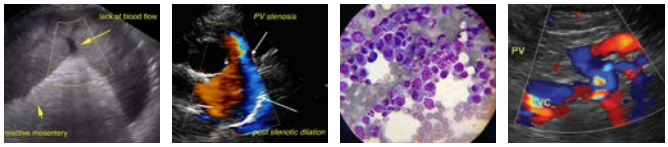

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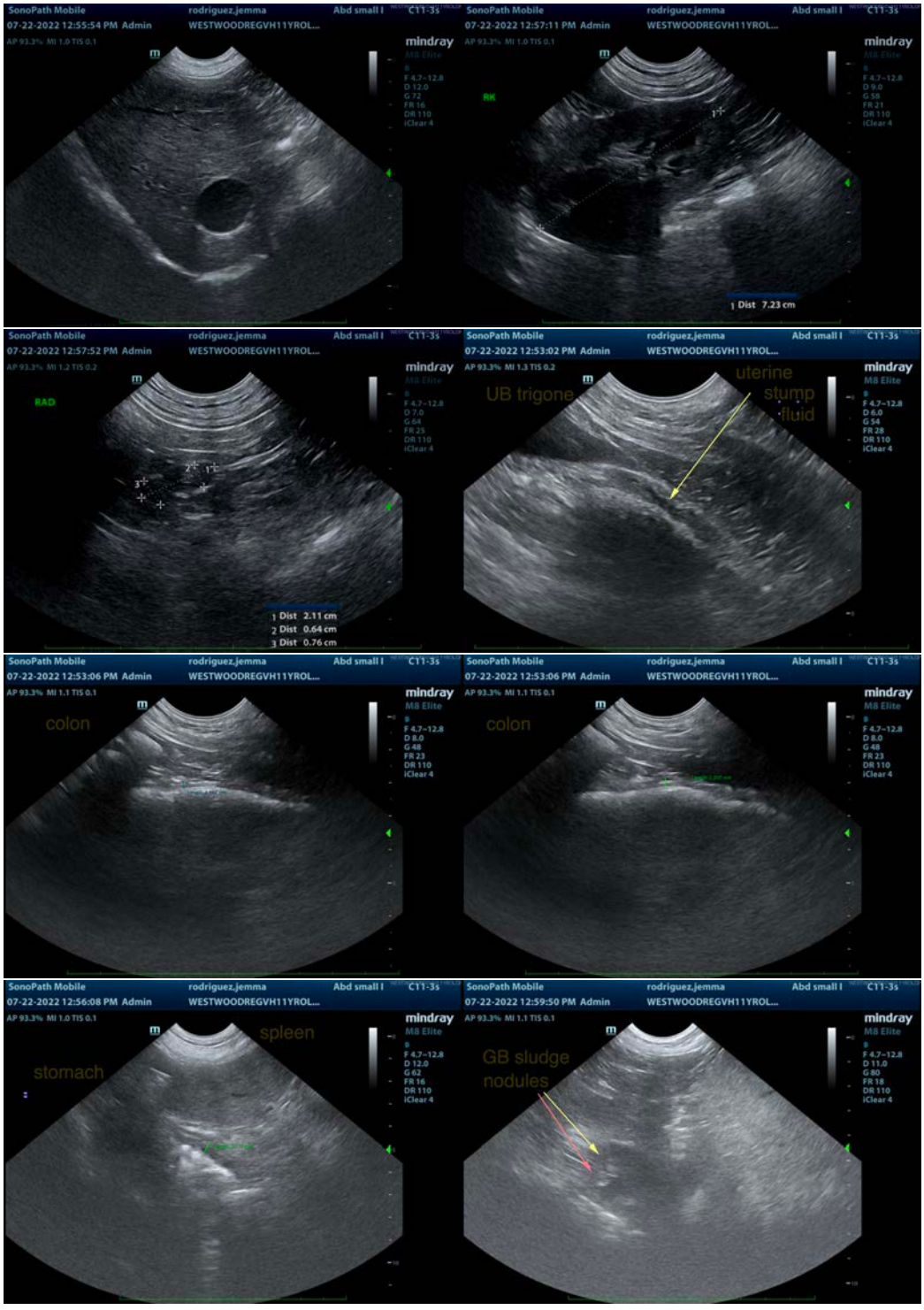

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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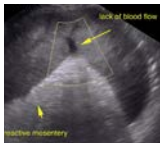
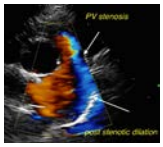
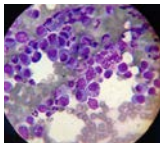
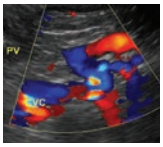

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