



**PATIENT PRESENTING CLINICAL SIGNS**

**Zoe Denis** Zoe presented today for diarrhea that started on Sunday, lethargy ongoing since yesterday, and decreased appetite since yesterday evening. O saw her vomit frothy bile this morning. O is unsure if she got into anything she's not supposed to

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Cranial abdominal discomfort, febrile (103) increased amylase, HCT, TP, alk phos, leukocytosis with neutrophilia. Abnormal cPI

**BREED**

Puggle

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**SEX**

Spayed Female

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

**AGE**

7.25 Years

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 5.4 cm. The left kidney measured 5.35 cm.

**WEIGHT**

36

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.5 cm. The right adrenal gland measured 0.6 cm at the cranial pole and 0.5 cm at the caudal pole.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Spleen**

The **spleen** was largely normal with a focal hypoechoic nodule (6.0 mm) was noted.

**IMAGING PERFORMED BY**

Dr. Winifred Krogman

**Liver**

**HOSPITAL NAME**

RB Northside AH

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**REFERRING VET**

Dr. Patrick Hampson

**Gastrointestinal**

**INVOICE**

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The **gastric** wall was thickened (up to 1.0 cm) with an empty lumen. No evidence of foreign body was noted. Reactive mesentery was noted around the upper gastrointestinal tract and pylorus with localized free fluid. Some loss of mural detail was noted in the gastroduodenal outflow. Significant inflammation was noted.

**DATE**

5/9/23

**Pancreas**



## PATIENT

Zoe Denis

Heterogenous parenchymal changes were noted in the base of the **pancreas**, yet the primary pathology appears to be pyloric. Secondary inflammation was noted spreading into the right limb of the pancreas.

## ULTRASONOGRAPHIC FINDINGS

### SPECIES

Canine

- Gastroduodenal thickening, undefined severe gastroduodenitis and regional secondary pancreatitis is likely. Potential for gastroduodenal carcinoma.

### BREED

Puggle

- Splenic nodule

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

### SEX

Spayed Female

No evidence of foreign bodies. Neoplasia is a possibility. I lean towards a gastroinflammatory event, gastroduodenitis and secondary pancreatitis. Full thickness gastroduodenal biopsies, or endoscopy with mucosal biopsies are indicated, as the pathology appears to be primarily mucosal, and therefore should be amenable to endoscopy guided samples. If sampling is not an option, then aggressive treatment for gastritis is indicated with 24hr NPO, GI protectants, coverage for helicobacter, such as the following:

### AGE

7.25 Years

### Helicobacter/Gastritis protocol

### WEIGHT

36

A clinical trial of **Zithromax (Dogs: 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment)**, **Metronidazole (10-20 mg/kg p.o. b.i.d.)**, **Pepcid (0.5-1 mg/kg s.i.d.)** and **Sucralfate (0.5-2 g/dog PO) or Omeprazole (1 mg/kg p.o. s.i.d.)** over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks.

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

A recheck sonogram to assess GI improvement or progression in 3-5 days, after 24hr slurry feeding would be recommended without any bulk, as it likely would be irritative.

## IMAGING PERFORMED BY

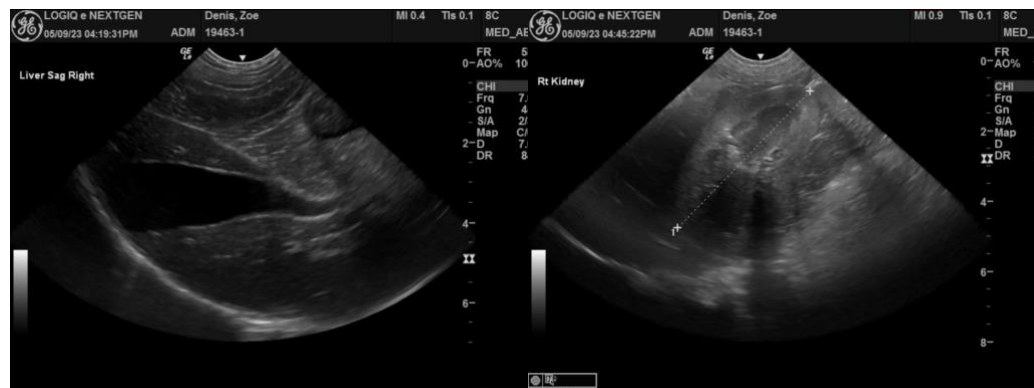
Dr. Winifred Krogman

## HOSPITAL NAME

RB Northside AH

## REFERRING VET

Dr. Patrick Hampson



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**PATIENT**

Zoe Denis

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

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**AGE**

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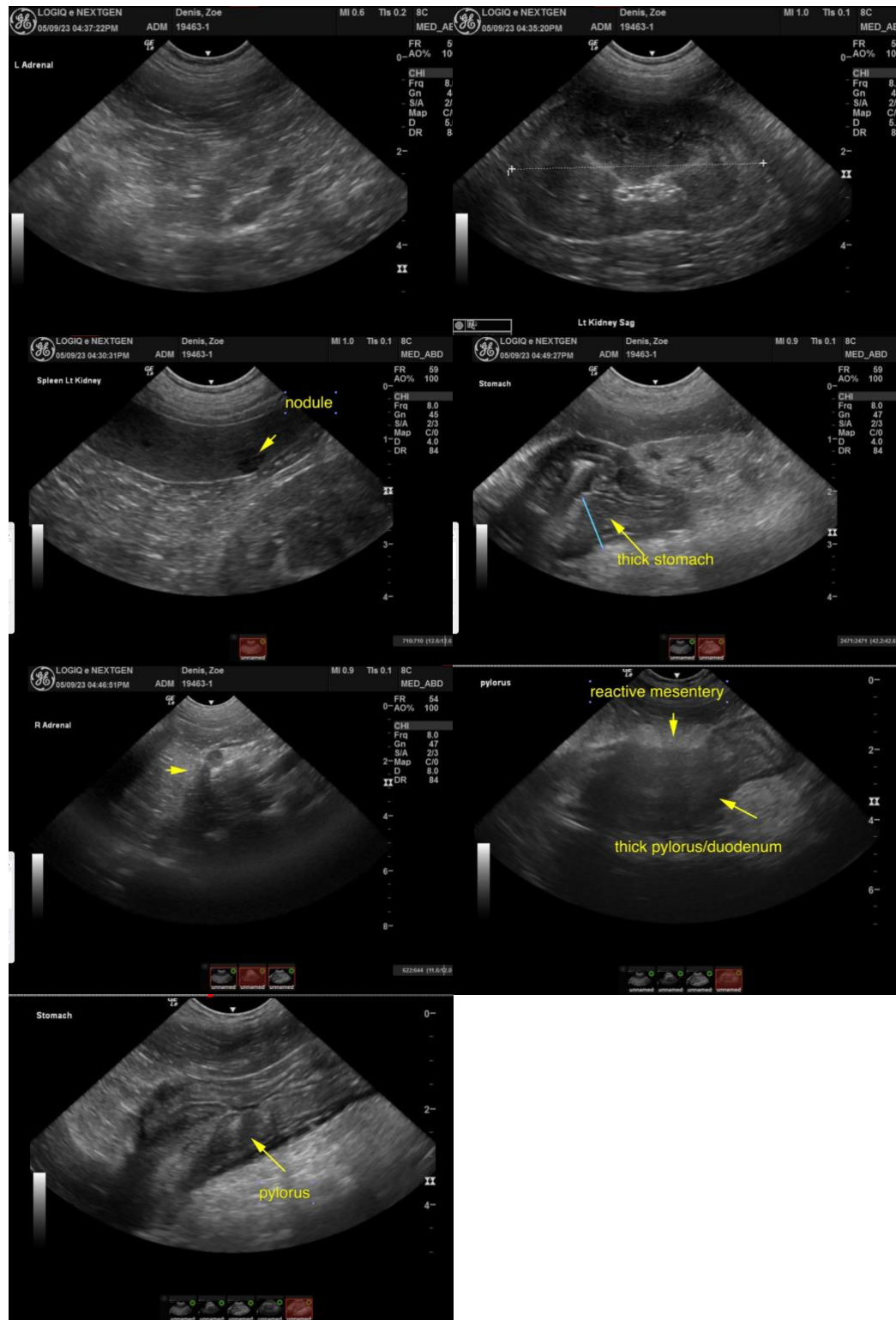
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



**PATIENT**

Zoe Denis

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.

**SPECIES**

Canine

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
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Puggle

**SEX**

Spayed Female

**AGE**

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