

**PATIENT**

Gizmo Masegian

**PRESENTING CLINICAL SIGNS**

Subjective: Patient presents BAR. Owner reports patient had been doing well when get omeprazole daily, but last night patient vomited 7x overnight. Owner reports patient "wouldn't eat" Hill's Science Diet OTC sensitive stomach. Owner unsure of what patient is currently eating - either Holistic or Nutro varieties, with salmon, lamb, or bison as meat. Does get table scraps on occasion. Patient rarely goes outside - just quick bathroom. Owner unsure of what set off this episode. Objective: Multiple retained deciduous teeth Comfortable abd. palpation OverweightSWO re: UA/culture results. Culture was negative and no crystals. UA is fairly active but secondary to whatever is going on. Fortunately concentrating well. Advised owner AUS is indicated now for 2 big reasons - patient's chronic vomiting and to work- up kidneys +/- bladder. Owner on-board. Owner reports patient generally doing well and only vomited once last night. Eating OTC Hill's with some RC wet.

**SPECIES**

Canine

**BREED**

Lhasa

**SEX**

Neutered Male

Abnormal PE/Chem/CBC/UA Results: LABSattached- AUS to r/o reason for chronic vomiting the past year

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE**

4 Years

**Urinary System**

The urinary bladder is adequately distended with anechoic urine. The Bladder wall appears mildly diffusely irregular and thickened. The area of the trigone, ureteral papillae and proximal urethra (to a depth of 2cm) appear normal and free of any masses or calculi. There is a focal hyperechoic area in the dependent portion of the bladder wall measuring 0.24 cm x 0.31 cm, which likely represents a bladder mass (polyp or TCC), or mucosal debris.

**WEIGHT**

9.5 Pounds

The prostate is normal in size (0.64 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The left kidney has a normal shape and size. (3.5 cm) Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT

The right kidney has a normal shape and size (3.51 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Options Vet Clinic

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.50 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**REFERRING VET**

Dr. Jeffrey Pearson

The right adrenal gland is normal in size measuring 0.51 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**INVOICE**

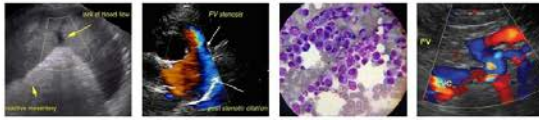
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**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**DATE**

12/16/21



**PATIENT**

Gizmo Masegian **Liver**

**SPECIES**

Canine

**BREED**

Lhasa

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Neutered Male

**AGE**

4 Years

**WEIGHT**

9.5 Pounds

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The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

**Gastrointestinal**

The stomach is severely dilated with fluid and irregular shadowing material, most consistent with normal ingesta and gas. The stomach wall appears normal in the area of the body and fundus with normal intact wall layering measuring 0.37 cm. In the area of the pylorus, the gastric wall appears more thickened and irregular, with measurements varying from 1.0-0.69 cm depending on the variability of rugal folds. The mucosal layer appears thickened and hypertrophied, and there appears to be a functional obstruction at this site where fluid is collecting. There is no obvious evidence of foreign material. Findings are most consistent with a pyloric outflow tract obstruction likely due to narrowing of the outflow tract due to excessive tissue, likely pyloric hypertrophy, but neoplasia cannot be excluded as a possibility.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.34 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**Pancreas**

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**Free Abdomen**

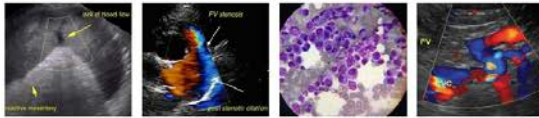
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

**Other**

A brief view of the heart was submitted. No significant pericardial effusion was seen.

**ULTRASONOGRAPHIC FINDINGS**

- Distended ingesta-filled stomach with thickened pyloric wall – suggestive of a pyloric outflow tract obstruction. Differentials include pyloric hypertrophy (benign) or a neoplastic process (round cell neoplasia/carcinoma). Other differentials exist.



## PATIENT

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- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

## SPECIES

Canine

- Mildly irregular urinary bladder mucosa with a possible mass effect – could be consistent with an inflammatory polyp, attached debris, or an early TCC.

## BREED

Lhasa

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

While not definitive, the images visualized on today's exam are suggestive of a pyloric outflow tract obstruction. In a small dog of this age, benign pyloric hypertrophy would be a likely differential, which could potentially be cured with surgery. Options moving forward include:

## SEX

Neutered Male

- Upper GI endoscopy to further evaluate the pyloric outflow tract and obtain superficial biopsies.
- If a more definitive 1-step plan is preferable, you could consider referral to a veterinary surgeon for exploratory and evaluation of the pyloric area. If it is indeed narrowed significantly, then a pylorotomy could be considered. If other changes are not evident at that time, then consider surgical biopsies.

## AGE

4 Years

- Recommend 3-view thoracic radiographs.

## WEIGHT

9.5 Pounds

Additionally, the urinary bladder wall is irregular, and there is some prominent tissue present. The history reports a negative urine culture, which is frustrating because I feel this has characteristics most consistent with cystitis. If this patient goes to surgery, a biopsy of the bladder wall could be obtained for culture and histopathology. If a more conservative route is desired, continued treatment with antibiotics and reevaluation with ultrasound in 4-6 weeks could be considered. Additionally, a urine BRAF test could be performed. If positive, this would increase the suspicion for a TCC. If negative, additional diagnostics need to be performed, as this is a non-diagnostic result.

## INTERPRETED BY

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 MS, Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

If this diagnosis does not fit the clinical picture, you could consider a prolonged fast with a barium study to evaluate gastric outflow. Bloodwork submitted is consistent with a metabolic alkalosis and hypochloridemia, which is also consistent with a pyloric outflow tract obstruction. Recommend close monitoring, as these patients can get very alkalotic and dehydrated.

## IMAGING PERFORMED BY

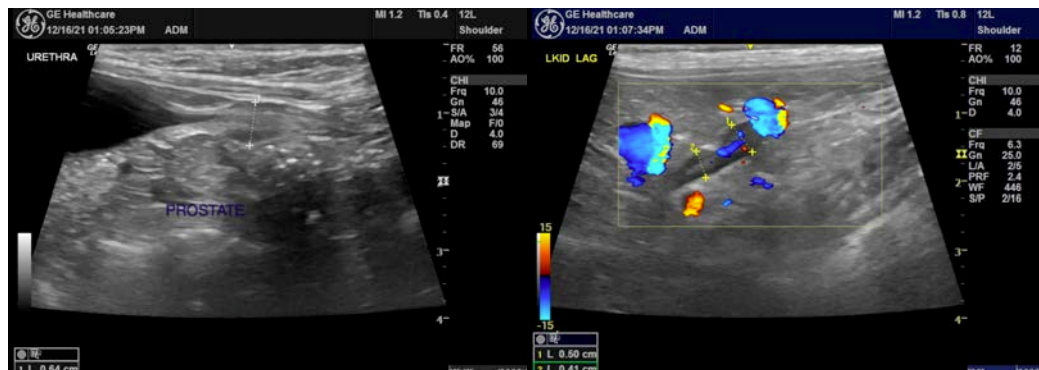
Loetitia Saint-Jacques, RVT

## HOSPITAL NAME

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## REFERRING VET

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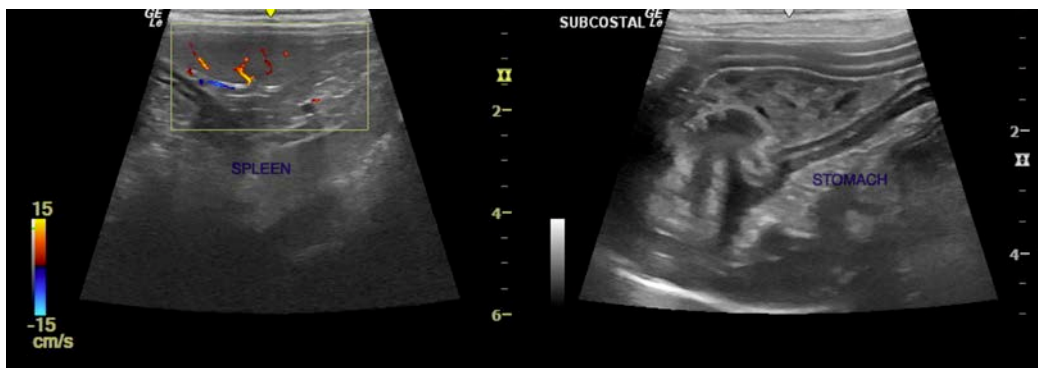
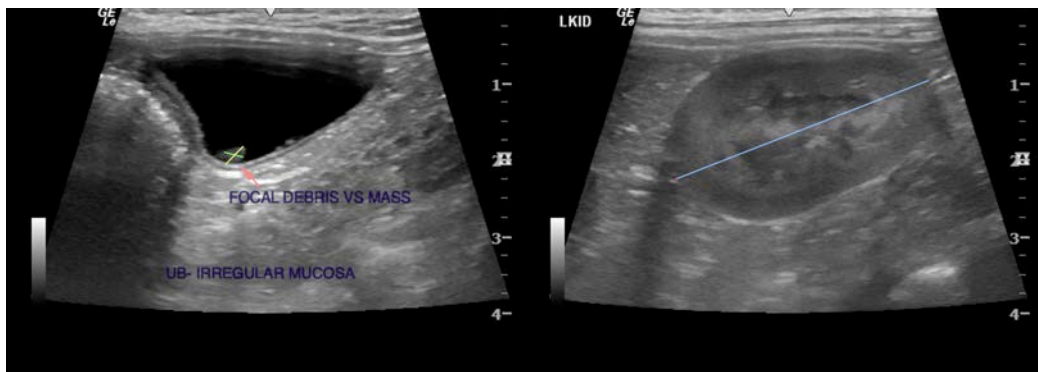
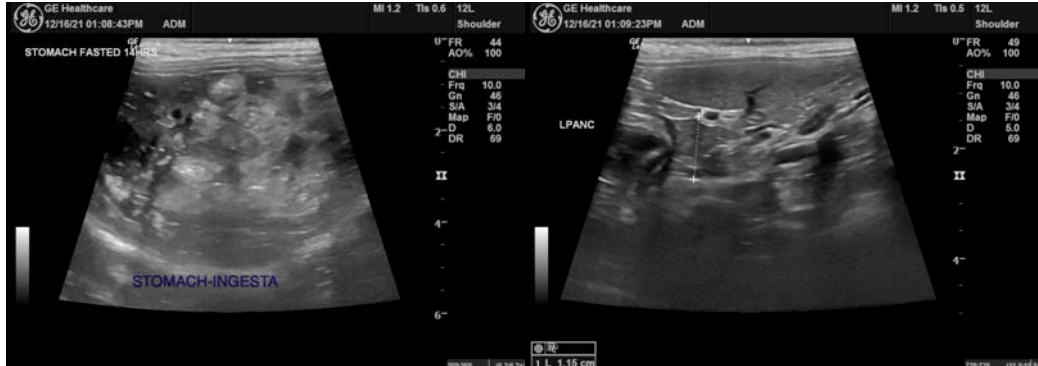
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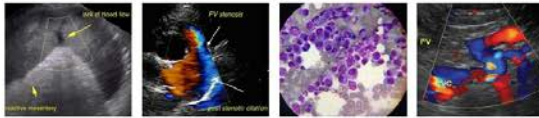
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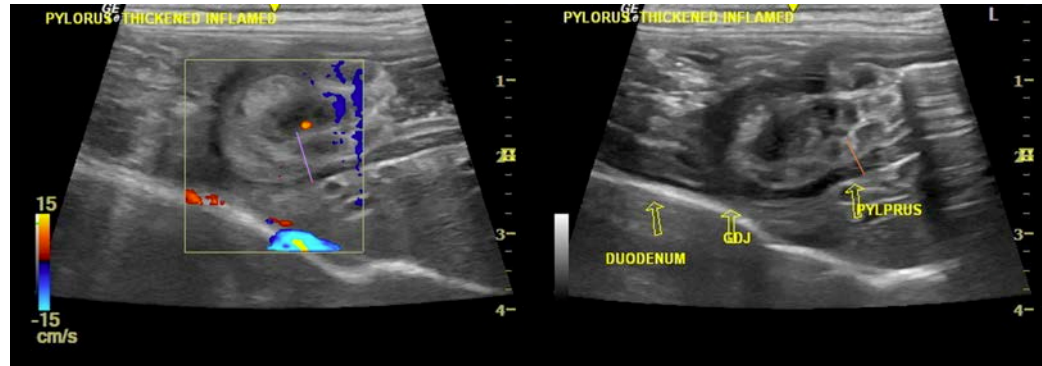
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT

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