



## PATIENT

Loki Gonzalez

## SPECIES

Feline

## BREED

DSH

## SEX

MN

## AGE

9 years

## WEIGHT

12.2 lbs

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Dr. Saum Hadi

## HOSPITAL NAME

Nimus Pet Hospital

## REFERRING VET

Dr. Saum Hadi

## INVOICE

10925

## DATE

12/10/2025

## PRESENTING CLINICAL SIGNS

P presents for evaluation of multiple episodes of pleural effusion. A previous fluid analysis was consistent with lymphocyte-rich effusion. P was diagnosed with hypertrophic cardiomyopathy with a pathologist. It was recommended to get 3 view chest rads following thoracocentesis (performed today) and an AUS to help r/o neoplasia as a cause of pleural effusion. Chronic hematesis history as well.

Abnormal PE/Chem/CBC/UA Results: PCV: 36% TS: 7.3 g/dl BUN: 20 mg/dL (reference range 16-36) Creatinine: 1.1 mg/dL (reference range 0.8-1.6) Na: 160 mmol/L (reference range 150-165) K: 3.6 mmol/L (reference range 3.5-5.8) Cl: 118 mmol/L (reference range 112-129) Lymphocyte rich effusion.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder lumen is normally distended, and the urinary bladder wall appears thin and smooth. The urine is anechoic. The proximal urethra and vesicoureteral junction have a normal appearance. No calculi or evidence of inflammatory or neoplastic changes are identified.

The left kidney is normal in shape and size (4.21x2.73 cm), with cortical thickness of 0.47 cm in the sagittal plane.

The right kidney is normal in shape and size (4.16x2.44 cm), with cortical thickness of 0.50 cm in the sagittal plane.

Both cortices have normal echogenicity, and the corticomedullary ratio and definition are preserved. No pyelectasia, nephroliths, or hydronephrosis are observed.

### Adrenal Glands

The left adrenal gland measures 0.35 cm at the cranial pole and 0.37 cm at the caudal pole.

The right adrenal gland measures 0.51 cm at the cranial pole and 0.44 cm at the caudal pole.

### Spleen

Splenic thickness is 1.25 cm. The splenic parenchyma is diffusely hypoechoic with a fine, homogeneous echotexture and no focal parenchymal abnormalities. The splenic capsule is smooth and regular.

### Liver

The liver is subjectively normal in size, with sharp margins and a regular contour. The parenchyma appears uniform and isoechoic relative to falciform fat, with normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder lumen is moderately distended. The wall is thin, and the contents consist of a moderate amount of biliary sludge. No dilation of the cystic duct or common bile duct is noted.

### Gastrointestinal

The stomach is empty and folded, with mural thickness of 1.78 mm and preserved wall layering. The pylorus measures 2.90 mm.



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Duodenum: 3.18 mm.

Jejunum: 3.45 mm (mucosa 1.73 mm, submucosa 0.75 mm, muscularis propria 0.75 mm).

Ileum: 3.34 mm (mucosa 1.13 mm, submucosa 1.02 mm, muscularis propria 1.12 mm).

The ileocecal junction measures 2.99 mm (muscularis 1.65 mm).

The colon wall measures 0.66 mm and contains formed feces in the descending segment.

No signs of obstruction, ileus, or foreign material are seen.

### *Pancreas*

The pancreas measures 7.01 mm in thickness. The parenchyma is hypoechoic compared to adjacent omental fat. The pancreatic duct measures 1.36 mm. No ultrasonographic evidence of active inflammation or neoplastic disease is identified.

### *Free Abdomen*

Tiny abdominal effusion is observed.

Cranial mesenteric lymph nodes measure 7.64–9.02 mm and are markedly heterogeneous.

Ileocecal lymph nodes measure 4.25–5.00 mm and are profoundly hypoechoic.

All lymph nodes are surrounded by hyperechoic perinodal fat.

The iliac trifurcation appears normal.

## PRIMARY FINDINGS

- Marked cranial mesenteric lymphadenopathy
- Intestinal wall thickening with muscularis hypertrophy.
- Pancreas mildly enlarged and hypoechoic with a borderline duct diameter (1.36 mm), compatible with inflammation or neoplastic infiltration.
- Enlarged spleen, diffusely hypoechoic.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the combination of multifocal lymphadenopathy, ileal muscularis thickening, and perinodal fat inflammation, alimentary lymphoma (small-cell or large-cell) is the most likely diagnosis in this patient.

The cranial mesenteric lymph nodes are enlarged, markedly heterogeneous, and surrounded by hyperechoic reactive fat—features highly suggestive of neoplastic rather than reactive lymphadenopathy.

The ileocecal lymph nodes are also enlarged and profoundly hypoechoic, further supporting lymphomatous infiltration. The ileum shows segmental thickening with a disproportionately thick muscularis layer and mild mucosal involvement, a classic ultrasonographic pattern of small-cell lymphoma or lymphoplasmacytic infiltration.

The spleen may have a reactive process due to systemic inflammation; however, in the context of the marked mesenteric and ileocecal lymphadenopathy, a diffuse splenic infiltration by lymphoma is also considered.

The pancreas appears mildly enlarged and hypoechoic with a borderline pancreatic duct diameter (1.36 mm), which may represent concurrent pancreatitis or pancreatic infiltration by lymphoma, both of which frequently occur alongside alimentary lymphoma in cats.



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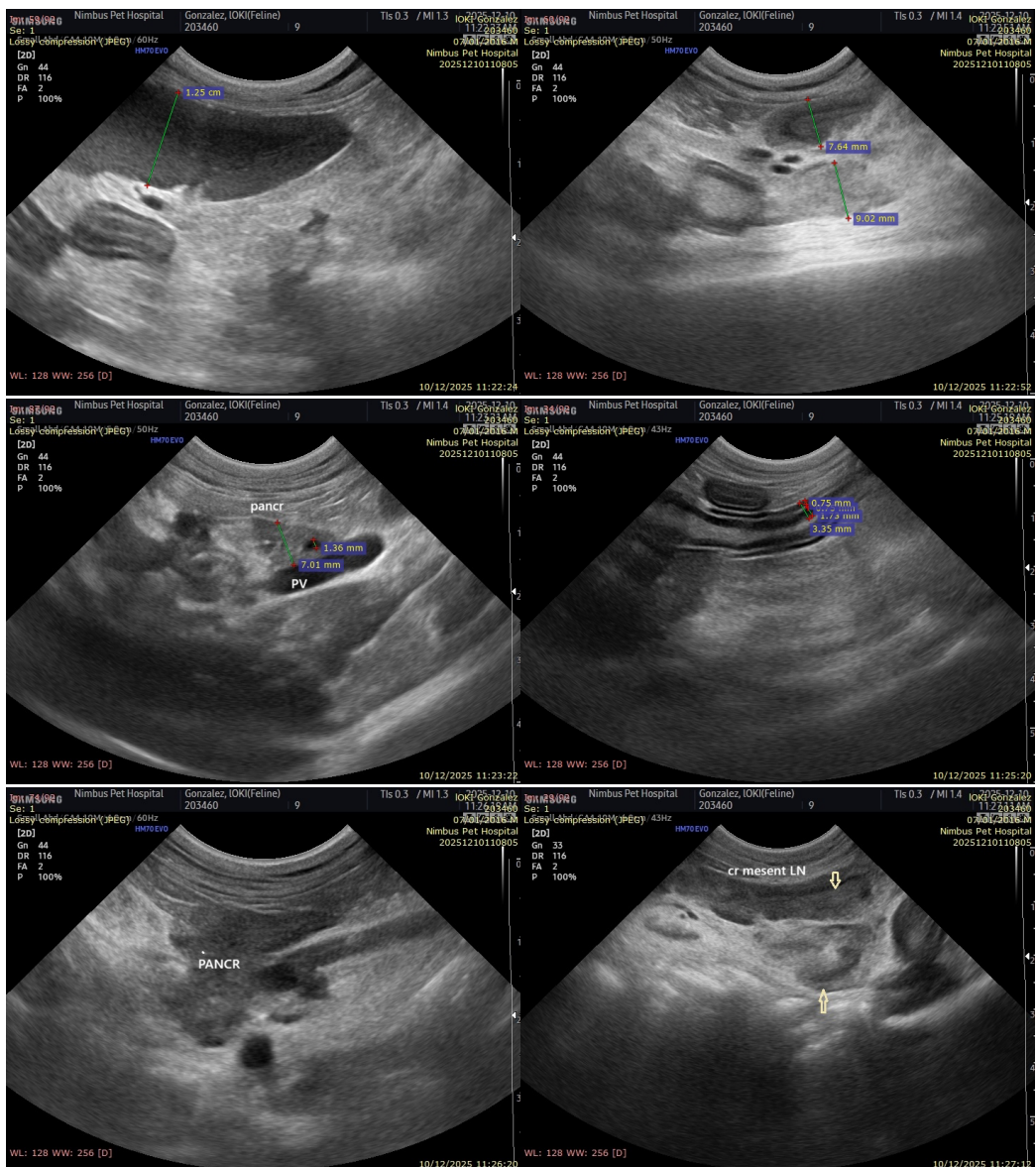
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In addition, lymphocyte-rich effusion is a well-recognized manifestation of mediastinal or systemic lymphoma, and the combination of thoracic and abdominal findings substantially increases the suspicion for a multicentric or alimentary form with thoracic involvement.

## Recommendations

- Fine-needle aspiration of mesenteric and ileocecal lymph nodes (cytology ± flow cytometry / PARR).
- FNA of the spleen, as diffuse infiltration is suspected.
- Thoracic imaging (3-view radiographs or CT) to evaluate for mediastinal lymphadenopathy or pulmonary involvement, given recurrent lymphocyte-rich pleural effusion.





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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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

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