GASTROINTESTINAL AND SPLANCHNIC MANIFESTATIONS IN A FELV-POSITIVE CAT: CASE REPORT

Manifestações gastrointestinais e esplâncnicas em felino felv-positivo: relato de caso

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Abstract

This report describes the case of a one-year-old mixed-breed female cat, FeLV-positive, presented with anorexia following vomiting and abdominal pain. Abdominal ultrasonography revealed marked gastric stasis, mild-to-moderate segmental enteritis, homogeneous splenomegaly, kidneys with bilateral corticomedullary hyperechogenicity, and a dilated celiac trunk showing turbulent Doppler flow. The case highlights multisystemic involvement with hemodynamic changes, potentially associated with vasculitis or thromboembolic disorder secondary to FeLV.

Keywords: Gastric stasis. Splanchnic congestion. Aegmental enteritis. FeLV. Doppler ultrasonography. Five fundamental freedoms.

Resumo

Relata-se o caso de uma felina sem raça definida, um ano, FeLV-positivo, atendida com anorexia após episódio de vômito e dor abdominal. A ultrassonografia abdominal evidenciou estase gástrica acentuada, enterite segmentar discreta a moderada, esplenomegalia homogênea, rins com hiperecogenicidade corticomedular bilateral e tronco celíaco dilatado com fluxo turbulento ao Doppler. O caso evidencia comprometimento multissistêmico com alterações hemodinâmicas potencialmente associadas a vasculite ou distúrbio tromboembólico secundário à infecção por FeLV.

Palavras-chave: Estase gástrica. Congestão esplâncnica. Enterite segmentar. FeLV. Ultrassonografia Doppler. Cinco liberdades fundamentais.

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Introduction

Gastric stasis in felines may be associated with gastrointestinal motility disorders, intestinal inflammatory processes, visceral pain, systemic infections, or vascular alterations. Feline leukemia virus (FeLV) is widely recognized for its immunosuppressive potential and its association with proliferative, infectious, and vascular diseases (Hofmann-Lehmann; Hartmann, 2020; Rissi; McHale; Miller, 2022). Recent evidence indicates that FeLV exhibits tropism for hematopoietic and endothelial cells, favoring the development of vasculitis, hemodynamic disturbances, and enteropathies of varying severity (Beatty; Hartmann, 2021; Gregor *et al*., 2024).

Additionally, epidemiological studies conducted in urban populations in Latin America have demonstrated a high prevalence of FeLV infection, reinforcing the need for a deeper understanding of its multisystemic clinical manifestations (Diesel *et al*., 2024; Castillo-Aliaga *et al*., 2024; Little *et al*., 2020).

Within this context, the present report describes an uncommon case of functional gastric stasis associated with splanchnic congestion, with ultrasonographic findings suggestive of vasculitis or a low-grade thromboembolic event in a young FeLV-positive patient.

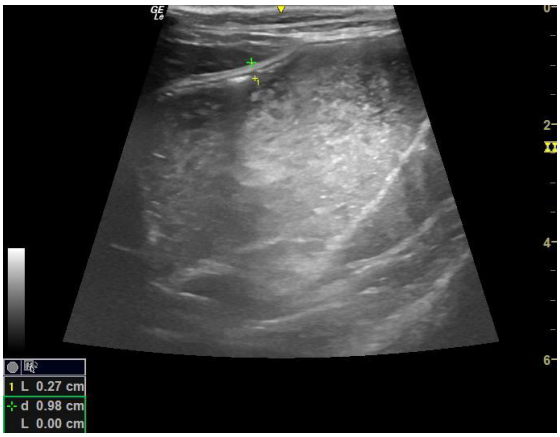
Case Report

Faísca, a mixed-breed female cat, one year old, spayed and FeLV-positive, was referred after presenting vomiting and abdominal pain shortly after outdoor access. The owner administered oral dipyrone without veterinary prescription, observing temporary improvement; however, the patient subsequently developed persistent anorexia. At five months of age, the cat had experienced episodes of emesis following ingestion of plants. The patient was fed commercial dry food and pouches, had free outdoor access, and lived with two healthy dogs.

On physical examination, the patient had a temperature of 38.5 °C, pink mucous membranes, non-reactive lymph nodes, and mild abdominal pain. Maropitant, dexamethasone (0.2 mg/kg), and dipyrone (25 mg/kg) were administered. An abdominal ultrasound examination was requested.

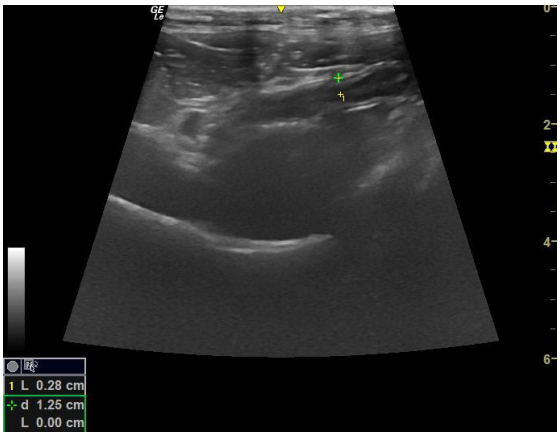
Ultrasonographic evaluation revealed a stomach with a wall thickness of 0.3 cm, preserved layering, and a large amount of food, fluid, and gas content. The duodenum was thickened (0.5 cm), with gaseous content and preserved mural architecture. The descending colon measured 0.1 cm, containing fecal and gaseous material, with no relevant abnormalities. The cecum showed parietal thickening of 0.3 cm with fecal content, and the ileum measured 0.3 cm with intact stratification (Images 1–5).

Image 1 – Stomach with a large amount of food, fluid, and gas content; wall thickness of 0.2 cm and preserved layering



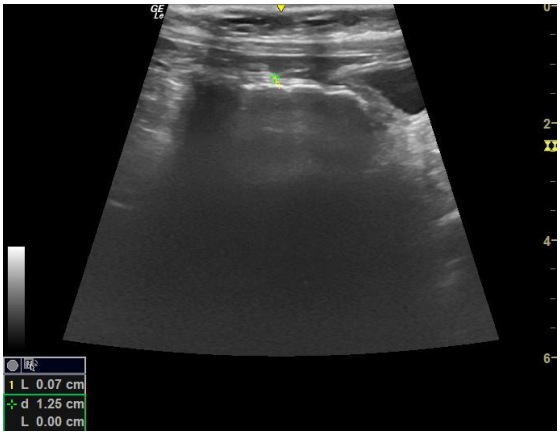
Source: Paes (2025).

Image 2 – Duodenum with wall thickening of 0.5 cm, gaseous content, and preserved stratification



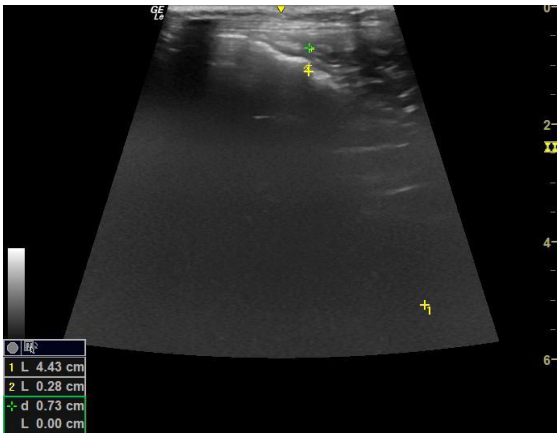
Source: Paes (2025).

Image 3 – Descending colon of normal thickness, with preserved mural stratification and fecal and gaseous content



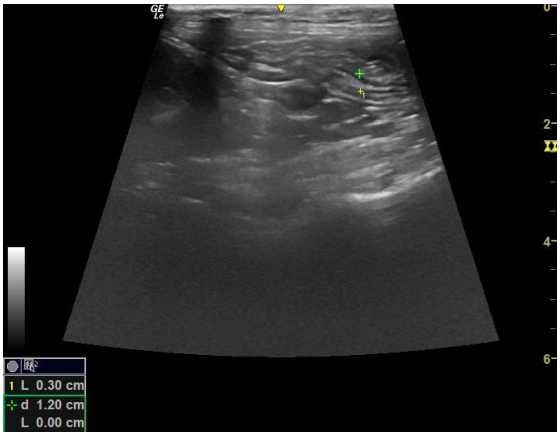
Source: Paes (2025).

Image 4 – Cecum with parietal thickening of 0.2 cm, gaseous and fecal content, and adequate mural stratification



Source: Paes (2025).

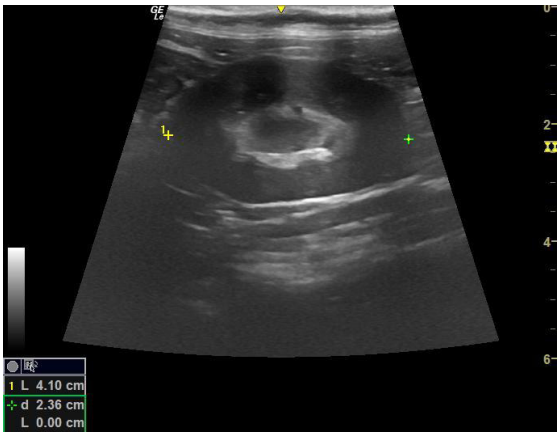
Image 5 – Ileum with wall thickening of 0.3 cm, absence of intraluminal content, and preserved stratification



Source: Paes (2025).

The kidneys measured 4.1 cm (left) and 4.2 cm (right), with regular contours and a mild increase in corticomedullary echogenicity, suggestive of a mild systemic inflammatory process or hemodynamic congestion. The spleen was enlarged (0.9 cm), homogeneous, and had regular contours. The celiac trunk measured 2.5 cm in length and 0.6 cm in diameter, was dilated, and exhibited turbulent flow on color Doppler, with aliasing compatible with splanchnic congestion or hemodynamic alteration (Images 6–10).

Image 6 – Enlarged left and right kidneys with a hyperechoic medullary band measuring 4.1 cm and 4.1 cm, respectively, on the longitudinal axis



Source: Paes (2025).

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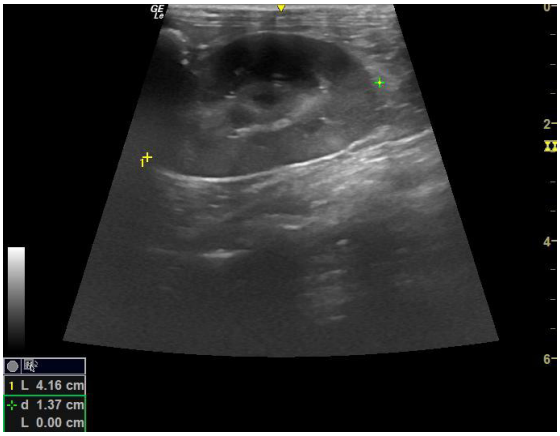
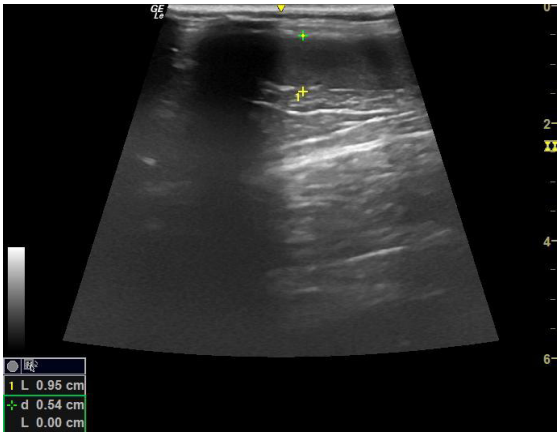
Image 7 – Enlarged right kidney with a hyperechoic medullary band measuring 4.16 cm on the longitudinal axis



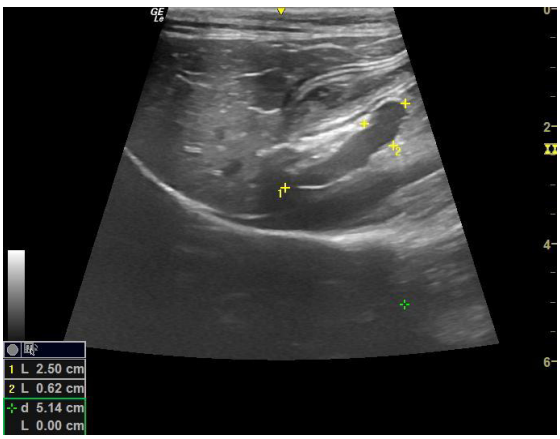
Source: Paes (2025).

Image 8 – Hypoechoic spleen with increased thickness of 0.9 cm and homogeneous parenchyma



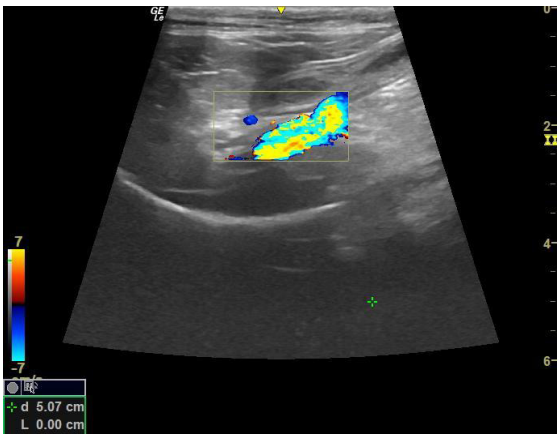
Source: Paes (2025).

Image 9 – Length (2.5 cm) and diameter (0.6 cm) measurements of the celiac trunk, with a rectilinear course and evident dilation



Source: Paes (2025).

Image 10 – Visibly turbulent and heterogeneous flow with aliasing zones in the celiac thrombus



Source: Paes (2025).

Discussion

The gastric stasis observed in this case likely resulted from a mild intestinal inflammatory process associated with visceral pain, possibly exacerbated by splanchnic vasomotor dysfunction. Functional alterations of this nature have already been described in felines affected by retroviral infections, in which the gastrointestinal tract is often among the first systems to manifest clinical signs (Hofmann-Lehmann; Hartmann, 2020; Rissi; McHale; Miller, 2022; Beatty; Hartmann, 2021).

FeLV shows tropism for hematopoietic and endothelial cells, a characteristic that favors the development of vasculitis and subclinical thrombotic events. Recent evidence reinforces this association, demonstrating that enteritis and vascular alterations are part of the pathological spectrum of the infection (Beatty; Hartmann, 2021; Gregor *et al*., 2024). In the present case, dilation of the celiac trunk associated with turbulent flow on Doppler imaging is consistent with a hemodynamic alteration, possibly related to vasculitis or a low-grade thromboembolic phenomenon.

Similar reports have been described in both domestic animals and wildlife species. Gregor *et al*. (2024) documented fatal FeLV-associated enteritis in a wild lynx, highlighting the systemic and, in certain contexts, lethal potential of the infection. Complementarily, epidemiological studies conducted in Brazil and Chile have demonstrated a high prevalence of FeLV in urban cat populations, underscoring its clinical and epidemiological relevance and reinforcing the importance of early diagnosis (Diesel *et al*., 2024; Castillo-Aliaga *et al*., 2024).

The renal alterations identified—characterized by mild corticomedullary hyperechogenicity—may reflect systemic inflammation, hemodynamic congestion, or incipient chronic kidney injury. Recent reviews indicate that nephropathy is a relatively frequent manifestation in cats infected with FeLV and FIV and may result from both immune-mediated mechanisms and vascular compromise (Little *et al*., 2020; Baxter *et al*., 2012).

The homogeneous splenomegaly observed, in turn, may be related to immune activation or venous congestion. Current evidence reinforces that the spleen is one of the organs frequently involved in the clinical manifestations of FeLV, being a target of proliferative, inflammatory, and vascular alterations (Hofmann-Lehmann; Hartmann, 2020; Little *et al*., 2020).

Thus, the present case suggests multisystem involvement affecting the gastrointestinal tract, spleen, kidneys, and vascular system, in line with both classical and contemporary pathophysiological descriptions of FeLV. The use of Doppler ultrasonography proved decisive for identifying subclinical

vascular alterations, reinforcing the importance of its routine inclusion in the evaluation of FeLV-positive cats.

Conclusion

This case highlights the relevance of functional and vascular ultrasonography in the assessment of FeLV-positive cats, even in the absence of apparent laboratory abnormalities. The findings of gastric stasis, mild segmental enteritis, splenomegaly, and dilation of the celiac trunk with turbulent flow represent underreported yet clinically significant manifestations.

For the veterinary clinician, the practical takeaway is clear: in FeLV-positive patients, ultrasonographic evaluation should extend beyond structural assessment to include splanchnic perfusion and hemodynamic parameters, as such alterations may indicate subclinical disorders that directly impact clinical management and prognosis.

Accordingly, this case report not only documents a rare finding but also proposes a broader and more integrative ultrasonographic approach in retrovirus-positive cats, contributing to continuing education and to high-quality clinical practice. &

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