





## Primary intestinal lymphoma with peritoneal lymphomatosis Linfoma intestinal primário com linfomatose peritoneal

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Primary gastrointestinal lymphoma is a rare condition with a rising incidence due to environmental factors and HIV infections. This condition can present significant diagnostic and therapeutic challenges.

A 63-year-old female presented with a 3-day history of abdominal pain, nausea, and obstipation. She had a recent diagnosis of HIV infection (category B3). Physical examination revealed diffuse abdominal pain with signs of peritonism. Laboratory tests showed acute renal lesion (creatinine 5.4 mg/dL) and elevated C-reactive protein levels (20 mg/dL).

Computed tomography (CT) of the abdomen and pelvis revealed circumferential parietal thickening of the ileum (Figs. 1 and 2), a slight amount of ascites, and small peritoneal nodules (Fig. 2). The kidneys appeared symmetrically enlarged, with heterogeneous contrast uptake and overall hypodensity (Fig. 3). No excretory system dilation was seen. No lymphadenopathies were observed.

These findings were suspicious for primary gastrointestinal lymphoma with renal involvement and peritoneal lymphomatosis in an immunocompromised HIV patient.

Due to bowel obstruction, the patient underwent seqmental enterectomy with ileostomy. Histological evaluation confirmed diffuse large B-cell lymphoma and lymphocytic peritonitis.

Primary gastrointestinal lymphoma is uncommon, although it is the predominant site of extranodal non-Hodgkin lymphomas, accounting for 20% of all cases. Any part of the gastrointestinal tract can be involved, but the stomach is the most frequent site, followed by the distal ileum<sup>1</sup>. The incidence is increasing due to environmental and exogenous factors, such as the rise in HIV infections, which can lead to B-cell activation<sup>1,2</sup>.

Clinically, most cases present with abdominal pain or bowel obstruction, though diarrhea or hemorrhage may also occur<sup>1</sup>.

CT may show bowel wall thickening with circumferential bulky mass or even mucosal ulceration and perforation. Aneurysmal dilation of the lumen may occur due to the destruction of the autonomic nerve plexus by the tumor. Obstruction is uncommon<sup>1,2</sup>.

Associated peritoneal lymphomatosis is rare, and the route of dissemination of intestinal lymphomas is believed to be contiguous<sup>3</sup>. The typical pattern is an omental cake with a bulky homogeneous mass, but a homogeneous smooth thickening of the peritoneum or small omental nodules may also be seen. If ascites is present, it is usually in low to moderate amounts<sup>3</sup>.

Kidney involvement in the presence of extranodal lymphoma, as seen in the present case, is classified as secondary kidney lymphoma, and HIV infection is a known risk factor<sup>2</sup>. Autopsy studies report an incidence between 30 and 60%, but imaging manifestations of secondary kidney involvement occur in only 1-8% of cases<sup>4</sup>.

Imaging can be non-specific, but multiple patterns of kidney involvement have been described such as the presence of multiple lesions, solitary lesions, direct extension from retroperitoneal adenopathy, perinephric

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**Figure 1.** Computed tomography coronal plane shows marked circumferential wall thickening of the terminal ileum (white arrow) confirmed as diffuse large B-cell lymphoma of the small bowel.



**Figure 2.** Computed tomography axial plane shows marked circumferential wall thickening of the terminal ileum (white arrow) and peritoneal small confluent nodules corresponding to peritoneal lymphomatosis (blue arrow).



**Figure 3. A:** computed tomography axial plane shows diffusely enlarged hypoattenuating kidneys. **B:** computed tomography axial plane from the same patient a year before shows normal-sized and enhancing kidneys.

disease, nephromegaly, and renal sinus involvement. Nephromegaly is caused by lymphomatous proliferation in the kidney interstitium and has been reported in 20% of cases, with the kidney usually maintaining its normal shape. In these cases, acute renal failure may occur from bilateral destruction of normal architecture<sup>5</sup>. CT shows bilateral kidney diffuse enlargement with heterogeneous hypovascular enhancement and loss of normal corticomedullary differentiation<sup>4,5</sup>.

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Conflicts of interest

None.

## Ethical considerations

**Protection of humans and animals.** The authors declare that no experiments involving humans or animals were conducted for this research.

**Confidentiality, informed consent, and ethical approval.** The authors have followed their institution's confidentiality protocols, obtained informed consent from patients. The SAGER guidelines do not apply.

None.

**Declaration on the use of artificial intelligence.** The authors declare that no generative artificial intelligence was used in the writing of this manuscript.

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