**H. pylori-associated gastric lymphoma: Complete remission in an HIV-positive patient treated with HAART and H. pylori eradication therapy**

H. pylori-gastric lymphoma is a type of non-Hodgkin’s lymphoma (NHL) that is often observed in patients with HIV infection. This association has been observed since the beginning of the HIV epidemic and is considered an AIDS-defining condition.

According to histologic subtype, there are two common forms of NHL: the most frequently observed one is the extranodal form in extranodal lymphomas (DLBCL) and Burkitt’s lymphoma, while the most common form in patients with HIV infection is the general population.

On the other hand, it is often associated with Helicobacter pylori (H. pylori) infections. However, gastric MALT lymphoma is a neoplasm not sufficiently described in H. pylori infection. Complete remission has been described in low-grade MALT lymphomas in both immune-competent and AIDS patients, without the use of anti-cancer chemotherapeutic agents. Only a few reports have described the complete remission of H. pylori-positive DLBCL in an HIV+ patient treated with HAART and H. pylori eradication, alone.

We present herein an HIV+ patient with H. pylori-positive DLBCL. A 47-year-old man presented with a 3-month history of heartburn, epigastric pain, and weight loss of 5 kg. The patient was afebrile with normal findings on physical examination. Laboratory tests reported the patient to be HIV-positive with a viral load of 1,240,000 copies/mL, a total lymphocyte count of 2,137/mm³, and CD4 of 725/mm³.

Upper gastrointestinal endoscopy revealed an 8 cm ulcerated gastric tumor on the greater curvature. Multiple biopsies were taken for pathologic and immunohistochemical analysis. Analysis confirmed a hypercellular neoplastic lesion of lymphoid origin that almost entirely replaced the mucosa with apoptotic cells and isolated polymorphonuclear cells. Giemsa staining revealed bacilli morphologically compatible with H. pylori (fig. 1). Immunohistochemical results were CD3−, CD5−, CD10−, CD20+, CD45+, BCL6+, Kappa +, and Lambda− (fig. 2).

The diagnoses reached were diffuse large B-cell gastric lymphoma, HIV infection, and H. pylori-associated gastritis. An abdominal CT scan showed a gastric mass without apparent adenomegalogy or metastasis.

The patient was prescribed highly active antiretroviral therapy (HAART) (Efavirenz 600 mg/Emtricitabine 200 mg/Tenofovir 300 mg q.d.) and H. pylori eradication therapy (Omeprazole 20 mg/Clarithromycin 500 mg Amoxicillin 1000 mg q.12 h 10 days). No antineoplastic chemotherapy was given.

At one-year follow up, the patient is asymptomatic with no evidence of tumor activity on endoscopy or biopsy, with an undetectable viral load, and a CD4 count of 543/mm³.

One year after the initiation of treatment with HAART and H. pylori eradication and no use of anticancer agents, the patient remains in complete remission. Ribiero et al. report a similar case in which a patient achieved complete remission without the use of antineoplastic agents (in MALT lymphoma) and Okame et al. reported a case of stage IE AIDS-related gastric DLBCL that responded to H. pylori eradication therapy and HAART.

HIV patients with gastric NHL treated only with HAART and H. pylori eradication therapy have a relatively good prognosis. A French study described 8 patients with MALT lymphoma, 6 of which had gastric involvement. Of these, 5 had concurrent H. pylori infection. Through the use of HAART and H. pylori eradication, complete remission was achieved in 100% of the patients with H. pylori-associated gastric lymphoma. In another study, 11 out of 16 patients (68.8%) with pure (de novo) DLBCL achieved complete remission after H. pylori eradication therapy.

There are complete remission rates of approximately 80% with antibiotic therapy. This is mainly due to the fact that lymphoma growth in the initial stages of lymphomatosis is stimulated by contact between neoplastic B cells and intratumoral H. pylori-specific T cells. It then follows that...
Figure 1  Giemsa stain. A and B) Bacilli morphologically compatible with *H. pylori*.

Figure 2  Immunohistochemical analysis. A) Positive immunoreaction to CD45 in neoplastic lymphocytes and in reactive B and T lymphocytes. B) Positive immunoreaction to CD20 in neoplastic lymphocytes. C) Focally positive Bcl-6 immunoreaction in neoplastic cells. D) Focally positive immunoreaction for Kappa in neoplastic cells.
Pyogenic granuloma of the jejunum; diagnosis and treatment with double-balloon enteroscopy: A case report

Granuloma piógeno de yeyuno. Diagnóstico y tratamiento con enteroscopia doble balón.

Reporte de un caso

The causes of gastrointestinal bleeding of obscure origin (GIBOO) are frequently located in the small bowel, and therefore both capsule endoscopy and double-balloon enteroscopy (DBE) can be used for identifying its etiology.

Pyogenic granuloma (PG) is an inflammatory vascular tumor that typically affects the oral cavity and skin. Digestive system involvement is a rare cause of GIBOO. We present herein a case of PG diagnosed and treated through DBE.

A 71-year-old woman had a past history of type 2 diabetes mellitus (metformin), chronic obstructive pulmonary disease (aerosol bronchodilators), congestive heart disease (hydrochlorothiazide), and coronary disease (isosorbide mononitrate). She sought medical attention for anemia of 8-month progression with no apparent bleeding. She received oral iron treatment with no response and required numerous hospitalizations for blood transfusions.

Upper gastrointestinal video endoscopy and video colonoscopy with intubation of the terminal ileum were normal. Serology for celiac disease was negative, the same as the gynecologic studies. Peripheral blood tests showed microcytic and hypochromic anemia.