Hodgkin's Lymphoma in a patient with Ulcerative Colitis: Case Presentation

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INTRODUCTION

Ulcerative colitis is a chronic, idiopathic inflammatory disease that affects the colon, most commonly affecting adults aged 30–40 years and resulting in disability. It is characterized by relapsing and remitting mucosal inflammation, starting in the rectum and extending to proximal segments of the colon. Therapy aims to induce and maintain clinical, defined as cessation of rectal bleeding and improvement in bowel habits, and endoscopic remission, frequently described as an endoscopic Mayo score of zero or one (1,2). Whether histologic healing should be an ultimate therapeutic goal is debated (2). Aminosalicylates are the main treatment choice for mild to moderate ulcerative colitis; topical and systemic steroids can be used to treat ulcerative colitis flares, while immunosuppressants and biological drugs are used in moderate to severe diseases. Colectomy is needed in up to 15% of patients with ulcerative colitis (1)

Hodgkin lymphomas (HL) are lymphoid neoplasms in which malignant Hodgkin/Reed-Sternberg (HRS) cells are admixed with a heterogeneous population of non-neoplastic inflammatory cells (3). The main treatment is chemotherapy, and radiation will play a role in some scenarios (4).

Chronic inflammation is a risk factor for cancer. Cancer risk has been widely assessed in IBD and has gained attention due to the growing use of immunomodulators (4). An example has been the increased risk of developing HL in patients with a history of chronic inflammatory disorders (3). However, the relevance of clinical features vs. immunomodulatory treatments as risk factors for cancer in IBD remains unknown (3,5).

CASE PRESENTATION

The case is a 36-year-old male patient diagnosed with UC in 2013 that was treated for four years with different regimens, including Mesalamine, Humira (Adalimumab), Azathioprine, Infliximab (Remicade) and Prednisone, due to various episodes of relapsing. During this period, the patient presented multiple disease complications, like iron deficiency anemia requiring IV iron. The patient was evaluated for proctocolectomy in January 2017, and plans were made for elective surgery.

Before going for a proctocolectomy, the patient was diagnosed with Hodgkin's lymphoma, nodular sclerosis, stage III B, after presenting with fever and night sweats in March 2017. All the medications for UC were stopped, and the patient received 12 cycles of Adriamycin, Bleomycin, Vincristine, and Dacarbazine (ABVD). The patient had PET/CT scan for an evaluation done on 9/7/2017, which was negative for increased uptake. The patient was in complete remission of the HL and clinical remission of UC, having daily bowel movements with no diarrhea, blood in stool, or constipation. The colonoscopy done in January 2018 reported evidence of quiescent colitis with scar tissue in pseudopolyps; there were some activities in the rectum with erythema and some mucopurulent exudate. Pathology reported sigmoid and rectum chronic ulcerative colitis with granulation tissues, but no dysplasia or malignancy was seen; the findings appear to be of lesser amount in this current biopsy compared to the previous ones, as there were areas of intact colonic glands and surface mucosa.

On the follow-up visits, the patient has shown well-being and steroid-free clinical remission of the UC. He continues in remission after five years of follow-up.

DISCUSSION

Patients with inflammatory bowel disease on immunosuppression are at risk of developing lymphoma, mainly primary gastrointestinal (GI) tract non-Hodgkin lymphoma. Primary GI Hodgkin lymphoma (HL) in this setting, however, is rare and poorly defined (6). In a Population-based study done in Florence, Italy, from 1978 to 1992, including 920 patients, a strongly increased risk of Hodgkin's disease was evident in the cancer follow-up of a representative series of patients with UC (7). The use of azathioprine/6-mercaptopurine (6-MP) imparts a greater than 5-fold increase in lymphoma compared with those who never received the drug (8).

Our patient was diagnosed with HL stages IIIB with cervical and retroperitoneal lymphadenopathy, but there was not any proven evidence of bowel involvement by lymphoma. He was diagnosed with HL 4 years after being diagnosed with the UC. He was receiving immunologic treatment during that period. Still, we cannot ensure a direct relation, and as stated in several studies, it is unclear if this increased risk is directly related to the inflammatory environment of these conditions or if it is increased by the immunosuppressive agents used to treat them (2,4)

Numerous studies have evaluated the increased incidence of gastrointestinal and extraintestinal malignancies in IBD, but there are little data regarding the effect of cancer treatment on the course of IBD.

A study done at Massachusetts General Hospital and the Brigham and Women's Hospital on 84 patients diagnosed with IBD found to have a solid malignant extraintestinal neoplasm. For patients with extraintestinal malignancy and active IBD, cytotoxic chemotherapy provided a significant benefit in inducing and maintaining IBD remission. Among patients in remission, compared with individuals who received cytotoxic chemotherapy alone, those receiving hormone therapy alone or in combination with cytotoxic agents were at a higher risk of flare (9). There is a case report of chemotherapy-induced remission of UC associated with rectal HL in a patient who was not subjected to immunosuppressive drugs or biologic therapy (10). There is also an observational cohort study done at Zuyderland Medical Centre, Netherlands, in 105 patients with consecutive IBD and cancer, showing that the mean number of IBD exacerbations decreased after cancer-associated chemotherapy (11)

Our patient received several lines of treatment for UC without significant improvement, as he continued having recurrent relapsing with 5-6 bloody bowel movements daily, but after the chemotherapy received for the HL, he has been in clinical remission.

CONCLUSIONS

Chemotherapy, the gold-standard treatment for lymphomas, potentially seems to induce simultaneous remission of UC. The resolution of the UC during the therapy for HL results in an interesting benefit that doesn't justify the chemotherapy for UC. Still, it is similar to other few occasional cases in the literature.

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