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Resolution of immune thrombocytopenic purpura after colectomy for ulcerative colitis

Ülseratif kolitin nadir extraintestinal bulgusu: İmmun trombositopenik purpura

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A number of different hematologic abnormalities are often encountered in patients with ulcerative colitis. Among them, thrombocytopenia is observed mostly as a side effect of therapy. Immune thrombocytopenic purpura is rarely reported in patients with ulcerative colitis, and various treatment modalities have been used for these two disorders.

We report a case with ulcerative colitis and immune thrombocytopenic purpura which were cured after the colectomy. This result suggests that immune thrombocytopenic purpura is the extraintestinal manifestation of ulcerative colitis.

Key words: Ulcerative colitis, immune thrombocytopenic purpura, colectomy

Ülseratif koliti olan hastalarda birçok farklı hematolojik bozukluklara sıklıkla rastlanmaktadır. Bunların arasında trombositopeni sıklıkla tedavinin yan etkisi olarak saptanmaktadır. İmmün trombositopenik purpura ise ülseratif kolitli hastalarda nadiren rapor edilmiş ve bu iki hastalığın tedavisinde çeşitli yöntemler kullanılmıştır.

Bu çalışmada kolektomi sonrası immün trombositopenik purpurası düzelen ülseratif kolit olgusu tanımlanmıştır. Bulgumuz immün trombositopenik purpuranın ülseratif kolitin ekstra intestinal bulgularından biri olduğunu desteklemektedir.

Anahtar kelimeler: Ülseratif kolit, immun trombositopenik purpura, kolektomi

INTRODUCTION

Ulcerative colitis (UC) is an inflammatory bowel disease (IBD) of unknown etiology associated with extraintestinal manifestations in numerous target tissues. Extraintestinal manifestations can be related to immunologic phenomena, malabsorption, and idiopathic causes (1, 2). Among the hematologic abnormalities, iron deficiency anemia is the most frequently seen, owing to gastrointestinal bleeding. Macrocytic anemia, autoimmune hemolytic anemia, leukocytosis and thrombocytosis can also occur (1-2). Immune thrombocytopenic purpura (ITP) has been reported sporadically in the literature. We report a case of a patient with UC and ITP as an extraintestinal manifestation of IBD.

CASE REPORT

A 20-year-old man presented with diarrhea at a frequency of 10-14 times a day, hematochezia, tenesmus and abdominal pain for two months. Six years previously he had been initally diagnosed with UC on the basis of colonoscopic and histopathologic examination. Musocal biopsies revealed chronic inflammation and crypt abscess. The first administered treatment had been initiated with corticosteroid and 5-aminosalicylic acid (5-ASA). The patient's symptoms then recurred after a period of three years, and he was hospitalized elsewhere due to severely symptomatic relapses. Repeated colonoscopy revealed severe UC involving the whole colon. Corticosteroid, 5-ASA and azathioprine were administered and maintained but his treatment had not been followed up for the year prior to admission to our clinic, due to socio-economic reasons. In the meantime he had used only 5-ASA because of his refusal of immunosuppressive treatment. He had suffered loss of sight in the left eye because of cataract in the last year.

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On admission, he was found to be anemic with a hemoglobin count of 8 g/dl (iron deficiency anemia) and platelet count of 53x109/L. After two days platelet count had decreased to 33x109/L. Bone marrow examination revealed increased number of megakaryocytes but no other abnormalities. There was no evidence of any other hematologic pathology, and renal and liver functions were normal. Hepatotropic viruses (hepatitis B, C) human immunodeficiency virus and anti nuclear antibody were negative. His stool studies were negative for bacterial pathogens, ova and parasites. Splenomegaly was absent on abdominal ultrasound. Platelet-associated antibodies (flow cytometric method) were positive. Colonoscopy revealed severe UC.

After admission, he was treated with 40 mg/day methylprednisolone. After seven days of treatment, platelet count rose to 88x109/L and the diarrhea abated. However, due to the patient's refusal of immunosuppressive treatment and social indication, a total colectomy was performed 20 days after the begining of the treatment. Splenectomy was not performed. From a pre-operative count of 102xl09/L, the platelet count increased to 274x109/L two weeks post-op.

The patient was followed for 18 months after the operation without any treatment and his platelet count was normal throughout this period.

DISCUSSION

Immune thrombocytopenic purpura is characterized by low platelet count, normal to increased megakaryocytes on bone marrow examination and absence of splenomegaly. ITP may be secondary to other diseases including autoimmune, viral and lymphoproliferative diseases (3). An association between IBD and ITP has been recognized recently (4-7).

In almost all cases, UC has preceded or coincided with the onset of immune-mediated thrombocytopenia, and a decrease in platelet count has frequently been observed during the acute exacerbation phase of colitis (7). In our case the onset of ITP was observed after the acute exacerbation of UC. Drug-related thrombocytopenia must be considered in the differential diagnosis of patients with UC who develop thrombocytopenia. 5-ASA products have been reported to cause thrombocytopenia by direct myelosuppression (8). In our case 5-ASA was ruled out as a cause of thrombocytopenia because the bone marrow was normocellular, with an increase in the number of megakaryocytes.

Pathologic mechanisms for the association between IBD and ITP are not clear. In all reported patients, ITP has almost certainly been an extraintestinal manifestation of IBD. Zlatanic et al. (9) suggested that antigenic mimicry between platelet surface antigen and bacterial glycoprotein plays a role in this association. Production of antibodies to these bacterial glycoproteins may cross-react with normal platelet antigens, and contribute to platelet clearance.

Various treatment modalities have been applied to the combination of IBD and ITP. Short courses of steroids have often been successful in inducing remission of both diseases. In more resistant cases, thrombocytopenia is controlled with high-dose steroids and splenectomy. If ITP is severe and UC mild, splenectomy should be considered first. Severe colitis and resistant thrombocytopenia necessitate colectomy or colectomy and splenectomy (7, 9, 10, 11, 12). *

In the case presented here, platelet count was maintained at a normal level for 18 months after the colectomy, which was performed because of social indication. This result confirms the findings which have claimed that thrombocytopenia is an extraintestinal manifestation of UC mediated by a disturbance of the immune system, and colectomy may prove to have a curative role for both UC and ITP.

REFERENCES

1. Rankin GB. Extraintestinal and systemic manifestations of inflammatory bowel disease. Med Clin North Am 1990; 74: 39-50.
2. Levine J, Lukawski-Trubish D. Extraintestinal considerations in inflammatory bowel disease. Gastroenterol Clin North Am 1995; 24: 633-45.
3. Brussel JB. Autoimmune thrombocytopenic purpura. Hematol Oncol Clin North Am 1990; 4: 179-91.
4. Jinbo T, Tamura J, Shinohara M, et al. Possible causal association between ulcerative colitis and idiopathic thrombocytopenic purpura. Clin Rheumatol 1992; 11: 408-9.
5. Yoshida EM, Chaun H, Freeman HJ, et al. Immune thrombocytopenic purpura in three patients with preexisting ulcerative colitis. Am J Gastroenterol 1996; 91: 1232-4.
6. Manzano ML, Yela C, Castellano G, et al. Idiopathic thrombocytopenic purpura and pancytopenia in a patient with Crohn's disease: a new association. Am J Gastroenterol 1996; 91: 1678.

7. Kodaira M, Hanai H, Kajimura M, et al. Further evidence that exacerbation of ulcerative colitis causes the onset of immune thrombocytopenia: a clinical case. Am J Gastroenterol 1999; 94: 1408-10.
8. Daneshmend TK. Mesalamine-associated thrombocytopenia. Lancet 1991; 337: 1297-8.
9. Zlatanic J, Korelitz BL, Wisch N, et al. Inflammatory bowel disease and immune thrombocytopenic purpura: is there a correlation? Am J Gastroenterol 1997; 92: 2285-6,
10. Miner RJ, Skoog SM. Immune thrombocytopenic purpua, profuse diarrhea, and new onset ulcerative colitis: a dramatic response to splenectomy. J Clin Gastroenterol 2001; 32: 276-7.
11. Bauer WM, Litchtin A, Lashner BA. Can colectomy cure immune thrombocytopenic purpura in a patient with ulcerative colitis? Dig Dis Sci 1999; 44: 2330-3.
12. Kathula SK, Polenakovik H, el Tarabily M, et al. Complete resolution of refractory immune thrombocytopenic purpura after colectomy for ulcerative colitis. Int J Clin Pract 2001; 55: 647-8.