Case Report

Concomitant Leukocytoclastic Vasculitis and Nephrotic Syndrome in a Patient with Ulcerative Colitis

Güray Can[1], Ali Rıza Soylu[2], Ahmet Tezel[2], Gülbin Ünsal[2], Bülent Yılmaz[3], Hatice Can[4], Hasan Celalettin Ümit[2]

[1] Abant İzzet Baysal University, Faculty of Medicine, Department of Gastroenterology, Bolu
[2] Trakya University, Faculty of Medicine, Department of Gastroenterology, Edirne
[3] Bolu İzzet Baysal State Hospital, Department of Gastroenterology, Bolu
[4] Abant İzzet Baysal University, Faculty of Medicine, Department of Internal Medicine, Bolu

*Conference presentations: 30th Turkish National Gastroenterology Week, 11-15 September 2013, Antalya, Turkiye (poster presentation)

Abstract

Leukocytoclastic vasculitis is extremely rare, although cutaneous involvement is frequently encountered in ulcerative colitis. Concomitant leukocytoclastic vasculitis and nephrotic syndrome in ulcerative colitis were not reported previously. In this article, we aimed to present a case of ulcerative colitis developing nephrotic syndrome and leukocytoclastic vasculitis after mesalamine.

Keywords: Leukocytoclastic vasculitis, Nephrotic syndrome, Ulcerative colitis

Corresponding Author: Güray Can MD. Abant Izzet Baysal University Faculty of Medicine. Department of Gastroenterology. 14280, Golkoy, Bolu / Turkey. Tel: +90 505 2762812 Fax: +90 374 253 46 15. E-mail: dr_guraycan@yahoo.com

Introduction

Ulcerative colitis (UC) is a chronic inflammatory disease limited to colonic segment in the gastrointestinal tract. Of the patients with inflammatory bowel disease (IBD), 21-36% have extra-intestinal manifestations (1). Among these manifestations, skin findings are frequently encountered in the affected patients (2). The most common lesions are erytema nodosum and pyoderma gangrenosum, however, other skin lesions like leukocytoclastic vasculitis (LV) are also seen even rarely (3). LV is a disease characterized by nuclear debris and neutrophilic infiltration in postcapillary venulla. Nephrotic syndrome is a picture characterized by proteinuria, hypoalbuminemia and edema. It is believed that nephrotic syndrome and LV are immune complex diseases (4). We presented the case of ulcerative colitis with LV and nephrotic syndrome developing after the initiation of mesalamine for ulcerative colitis.

Case-Report

A 69 year old male patient admitted to hospital with 8 times per day, bloody diarrhea without abdominal pain and fever approximately for 2 months. In his colonoscopic examination, there was a completely absent submucosal vascular pattern, granulation scattering and contact bleeding on the mucosa of all colonic segments from rectum to cecum. In some colonic segments, milimetric ulcers were seen. The mucosal appearance of the terminal ileum was normal. Stool analysis revealed no significant pathology except plenty of leukocyte and erythrocyte. There was a basal plasmocytosis, cryptitis and

crypt abscess in the lamina propria in the colonic mucasol biopsy specimens. Its diagnosis was considered as ulcerative colitis with extensive involvement. In the physical examination at admission, there was not any significant feature except blood in rectal examination. Laboratory values were as follow: ESR: 107/hr, CRP: 9.23 mg/dl. He did not have fever, leukocytosis and extra-intestinal symptoms and signs including uveitis. Urine analysis and serum creatinin level was in normal range although he had a diagnosis of chronic kidney disease. Metronidazole 1500 mg/day tablet, mesalamine 4 gr/day tablet and mesalamine 4 gr/day enema were initiated to the patient. Frequency of defecation decreased to 1-2 times a day after mesalamine therapy. CRP value decreased to 1.1 mg/dl, and the patient was discharged at tenth day of the treatment. He admitted to our hospital with reddish, unfading, 5 mm sized macular rash on both lower extremities 3 days after discharge (Figure-1). He had a 3 (+) pretibial edema and 500 mg/dl proteinuria at 24-hr urine analysis. Serum albumin value was 2.7 gr/dl. Skin biopsy was taken from the patient by dermatologist. On the microscopic examination of the biopsy speciment, there was neutrophilic infiltration, necrosis on the wall of vessels and perivascular fibrinoid deposition. The diagnosis of rashes were considered as acute leukocytoclastic vasculitis. His arterial tansion increased 160/100 mmHg. Cylinders were seen in urine analysis. C3 and C4 levels were low. After a few days, urine protein excretion increased to 12 gr/day. Kidney biopsy was taken from the patient. Membranoproliferative glomerulonephritis was reported as a result of renal biopsy. Hereupon, intravenous methyl prednisolone 60 mg was initiated to the patient. Mesalamine was stopped. At the fifth day of corticosteroid therapy, cutaneous lesions substantially regressed, proteinuria improved. In the following visits, corticosteroid dose was gradually decreased and it was ceased.

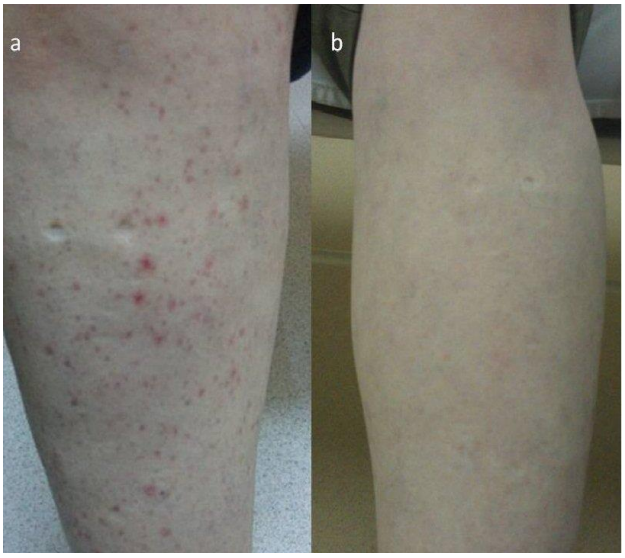

Figure 1. Leukocytoclastic vasculitis on the skin before the corticosteroid therapy (a), these lesions completely regressed after the corticosteroid therapy (b).

Discussion

A few cases of leukocytoclastic vasculitis was reported in UC and CD (5-8). There are four UC cases with LV in the literature (8-10). But, concomitant nephrotic syndrome and LV in UC was reported only in two cases in our best of knowledge. IgA immune-complex related lekocytoclastic vasculitis and glomerulonephritis were indicated in two UC patients (11). In the clinical picture of our case, it may also be associated with medication side-effect, as well as it may be associated with UC. In both circumstances, pathophysiologic mechanism is

not known yet, but it is think that it is associated with the deposition of IgA immune-complex into the glomerular basement membrane and subcutaneous structures that have a mimicry (12, 13). Although it is rarely encountered, it is important to be aware of potantial concomitance by the clinicians.

References

1. Hoffmann RM, Kruis W. Rare extraintestinal manifestations of inflammatory bowel disease. Inflamm Bowel Dis 2004; 10: 140-7.
2. Danzi JT. Extraintestinal manifestations of idiopathic inflammatory bowel disease. Arch Intern Med 1988; 148: 297-302.
3. Tavarela Veloso F. Review article: skin complications associated with inflammatory bowel disease. Aliment Pharmacol Ther 2004; 20 Suppl 4: 50-3.
4. Mackel SE, Jordon RE. Leukocytoclastic vasculitis. A cutaneous expression of immune complex disease. Arch Dermatol 1982; 118: 296-301.
5. Zlatanic J, Fleisher M, Sasson M, Kim P, Korelitz BI. Crohn's disease and acute leukocytoclastic vasculitis of skin. Am J Gastroenterol 1996; 91: 2410-3.
6. Ekenstam E, Callen JP. Cutaneous leukocytoclastic vasculitis. Clinical and laboratory features of 82 patients seen in private practice. Arch Dermatol 1984; 120: 484-9.
7. Humbert P, Monnier G, Billerey C, Birgen C, Dupond JL. Polyneuropathy: an unusual extraintestinal manifestation of Crohn's disease. Acta Neurol Scand 1989; 80: 301-6.
8. Akbulut S, Ozaslan E, Topal F, Albayrak L, Kayhan B, Efe C. Ulcerative colitis presenting as leukocytoclastic vasculitis of skin. World J Gastroenterol 2008; 14: 2448-50.
9. Iannone F, Scioscia C, Musio A, Piscitelli D, Lapadula G. Leucocytoclastic vasculitis as onset symptom of ulcerative colitis. Ann Rheum Dis 2003; 62: 785-6.
10. Newton JA, McGibbon DH, Marsden RA. Leucocytoclastic vasculitis and angio-oedema associated with inflammatory bowel disease. Clin Exp Dermatol 1984; 9: 618-23.
11. Peeters AJ, van den Wall Bake AW, Daha MR, Breeveld FC. Inflammatory bowel disease and ankylosing spondylitis associated with cutaneous vasculitis, glomerulonephritis, and circulating IgA immune complexes. Ann Rheum Dis 1990; 49: 638-40.
12. Kett K, Rognum TO, Brandtzaeg P. Mucosal subclass distribution of immunoglobulin G-producing cells is different in ulcerative colitis and Crohn's disease of the colon. Gastroenterology 1987; 93: 919-24.
13. Das KM. Relationship of extraintestinal involvements in inflammatory bowel disease: new insights into autoimmune pathogenesis. Dig Dis Sci 1999; 44: 1-13.