Association between Red Blood Cell Distribution Width and Disease Activity in Behcet’s Disease

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Background: Behcet’s disease (BD) is a chronic systemic inflammatory disorder characterized by recurrent oral aphthae and other systemic involvement. Red blood cell distribution width (RDW) is a measurement of heterogeneity in size. RDW is commonly used in the differential diagnosis of anemia, but recently, RDW has been thought to be an inflammatory marker in many diseases. Objective: We investigated whether RDW might be a marker that reflects the disease activity of BD. Methods: 188 patients with BD were enrolled and divided into active and inactive group by Behcet’s Disease Current Activity Form 2006. 100 normal healthy individuals were enrolled as control group. In addition to RDW, laboratory results including erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP) were assessed. Results: RDW was significantly higher in patients with active BD than both inactive BD and healthy control groups (p < 0.05) (Fig. 1). RDW was more positively correlated with disease activity index (r = 0.299, p < 0.05) than ESR (r = 0.193, p < 0.05) or CRP (r = 0.221, p < 0.05). Among clinical variables, RDW greater than 13.35 % was significantly associated with disease activity on univariate analysis (p < 0.05) and multivariate analysis revealed that the disease activity was associated with RDW only (OR 2.603 95% CI 1.609, 4.214, p < 0.05). Conclusions: RDW is independently associated with the disease activity of BD. Our findings indicated that RDW is more significant marker of the disease activity than ESR or CRP in BD.

Behcet’s Disease in a Patient with Moyamoya Disease

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Introduction: Behcet’s disease (BD) is a vasculitis characterized by recurrent oral ulcer and any of other systemic involvement. Moyamoya disease (MMD) is a cerebrovascular disorder of unknown etiology characterized by bilateral progressive stenosis or occlusion of the internal carotid artery and the development of an abnormal vascular network around the arterial occlusion. In Korea, this is the first report of BD diagnosed in a patient previously diagnosed by MMD. Case: In June 2012, 37-year-old woman visited the hospital with fever and diarrhea lasting 7 days. The patient had a history of MMD in November 2007, and she had been on medication, instead of surgery. On physical exam, oral ulcer and genital ulcer were identified, and there were no abdominal tenderness. Blood tests showed leukocytosis and elevated level of ESR and CRP. Abdomen CT revealed terminal ileitis, and colonoscopy showed a large well demarcated ulcer at the terminal ileum, which was suggestive of intestinal BD. Ophthalmic examination showed uveitis in both eyes. She was diagnosed with BD to meet the criteria of recurrent oral ulcer, genital ulcer, uveitis and intestinal involvement. She was started steroid therapy at a dose of 1 mg/kg and was discharged. After one week, she was admitted again with dysarthria and right side weakness. Cerebral angiography showed progressed stenosis at the left MCA and bilateral ACA, suggestive of a progression of MMD. She was discharged after one week of conservative treatment. The symptoms improved on her next follow up and steroid was tapered down over the next 6 months. At the moment, she is under observation with colchic, aspirin, and choline alfoscerate. Discussions: The report of two cases occurring simultaneously in a patient is rare. There were one case report of MMD diagnosed in a patient who had been diagnosed by BD. In our case, it is interesting that there seemed to be a temporal relevance between the diagnosis of BD and the aggravation of MMD. Currently little is known about the association between the two diseases. As chronic vascular inflammation would cause atherosclerosis, further studies are needed to elucidate the relationship between BD and MMD.