Fluvastatin decreasing interleukin-8 production may be used to reduce cardiovascular risk in patients with Behcet’s disease

Yinfang W and Xiaodong S

1Department of Hepatobiliary and Pancreatic Surgery, Zhejiang Provincial People’s Hospital, People’s Hospital of Hangzhou Medical College, Hangzhou 310014, Zhejiang Province, PR China
2Key Laboratory of Tumor Molecular Diagnosis and Individualized Medicine of Zhejiang Province, Hangzhou 310014, Zhejiang Province, PR China
3The Second Clinical Medical College, Zhejiang Chinese Medical University, Hangzhou 310000, Zhejiang Province, PR China

Behcet’s disease (BD) frequently occurs in our daily clinical work. BD patients usually need intensive care in the late-stage of the disease because of frequently occurred cardiovascular events [1-3]. However, potential medical interventions to patients with BD still remain unclear. Here, we speculate that fluvastatin decreasing interleukin-8 (IL-8) production could be used to reduce the cardiovascular risk in BD patients.

BD is characterized by a multi-systemic inflammatory disorder. Previous studies showed serum IL-8 levels were significantly elevated in BD patients [4]. Furthermore, there is sufficient evidence to support that IL-8 was involved in the establishment and preservation of the vessel wall inflammation within numerous cardiovascular disease, such as atherosclerosis and myocardial infarction [5], showing a novel intervention target for BD. Importantly, fluvastatin, a HMG CoA reductase inhibitor, has been firmly identified to decrease IL-8 production in whole blood and human vascular smooth muscle cells [6,7], suggesting its potential intervention role in cardiovascular risk in BD patients. Moreover, in addition to the possible way through regulation of IL-8, fluvastatin has been widely confirmed to achieve a remarkable therapeutic effect on cardiovascular disease by modulating lipid metabolism.

In conclusion, fluvastatin may reverse the up-regulation of serum IL-8 levels in BD. If so, reasonable application of fluvastatin as a conventional medication presents a potential therapeutic approach for treating IL-8-induced cardiovascular morbidity and mortality in BD patients.

Conflicts of interest

There are no conflicts of interest associated with this manuscript.

References


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