The role of IL-23/IL-17 axis in the etiopathogenesis of Behçet's disease

Rui-Xue Leng · Gui-Mei Chen · Hai-Feng Pan ·
Dong-Qing Ye

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Dear Editor,

Recently, Kapsimali et al. reviewed the factors involved in the pathogenesis of Behçet's disease (BD) with emphasis on the role of immunological aberrations. The authors concluded that Th1 immune response polarization was a main characteristic when focusing on the influence of cytokines in the etiopathogenesis of BD and suggested that IL-12 may play a central role in the disease immune mechanisms [1]. Indeed genetic factors' involvement has been investigated. The findings showed that Th1 cytokines (including IL-12 and IFN- γ) polymorphisms were associated with susceptibility to BD [2]. However, as we know, IL-12 shares a p40 subunit with IL-23, which has additional inflammatory effects apart of IL-12. In fact, update data have suggested that IL-23/IL-17 axis may be crucial to BD development.

A previous study has shown higher IL-23 in sera of BD patients with uveitis and found that there was a meaningful correlation between IL-23 content and disease activity [3]. Moreover, Lew et al. reported an increased expression of IL-23 p19 mRNA in erythema nodosum-like lesions of BD patients [4]. Furthermore, Chi et al. showed that the expression of IL-23p19 mRNA, IL-23, IL-17, and IFN- γ was markedly elevated in BD patients with active uveitis. Meanwhile, the frequencies of IL-17-producing and IFN- γ -producing T cells from PBMCs were significantly upregulated in BD patients with active uveitis. These findings hinted that

the IL-23/IL-17 pathway together with IFN- γ was associated with the active intraocular inflammation in BD [5]. In addition, authors also identified IL-23R and IL-17F gene polymorphisms which were associated with susceptibility to BD [6, 7].

Collectively, not only IL-12/IFN- γ axis but also IL-23/IL-17 pathway may make a contribution for immunological aberrations of BD. Therefore, further studies are required to comprehensively explore the role of Th17 immune response in the etiopathogenesis of BD.

Disclosures None

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R.-X. Leng · G.-M. Chen · H.-F. Pan · D.-Q. Ye (✉)
Department of Epidemiology and Biostatistics,
School of Public Health, Anhui Medical University,
81 Meishan Road, Hefei, Anhui 230032, People's Republic of China
e-mail: ydq@ahmu.edu.cn