Landmark Clinical Study In SLE: Part I

Pathogenesis in SLE and Role of Interferon

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The pathogenesis of SLE remains incompletely understood. An extremely complicated and multifactorial interaction among environmental factors and various genetics is probably involved. Efforts to understand the predisposition to SLE have been conducted to focus on environmental factors. A large study published in late 2017 has lighted up at least one aspect of environmental risk. In an analysis of data from the Nurses’ Health Study reported on the association of SLE incidence with trauma. Patients with trauma have a nearly threefold increase in risk of developing SLE compared to those with no reported history of trauma (HR 2.83, 95% CI 1.29–6.21; P < 0.01). This data supported that stress could result in changes in the hypothalamic–pituitary–adrenal (HPA) axis and in the immune system, which is now clear that over activation of the type I interferon (IFN) system, resulting in a typical ‘IFN signature’ in gene expression profiling, is evident in a substantial majority of patients with SLE. Therefore, IFN-alpha has become interesting biomarkers for monitoring the disease activity and therapeutic target in SLE.

Reference

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