Observing an expression of TNF-α, IL10 and HBEGF on peripheral blood mononuclear cells (CD14+) of a guttate psoriatic patient at Ho Chi Minh City

Nguyen Hong Viet, Pham Cuc Hoa

Pham Ngoc Thach University of Medicine, HoChiMinh, VietNam

Abstract

Psoriasis is a chronic autoimmune disease in dermatology. The experiment collected peripheral blood samples from cohorts. These samples were treated and sorted mononuclear leukocytes with LPS receptors or CD14. Then, they were stimulated by a lysis of Streptococcus pneumonia in 24 hours. These cells were harvested in 0, 1, 24, 48, 72,120 (day 5) and 168 (day 7) hours and were isolated total mRNA. All mRNA samples were converted into the cDNA samples which were utilised to indirectly evaluate the cytokine expression of TNF-α, IL10 and Heparin-binding EGF-like growth factor (HBEGF) on the mononuclear cells (CD14+) in the period shown. Regarding result of the psoriatic patient, three cytokines abnormally prolonged after the 24 hours induction. The signals of TNF-α, IL10 and HBEGF expanded throughout 48 hours, 5 days and 7 days, respectively. In addition, a band (627bp) was obtained in from PCR products of IL10. Furthermore, sequencings the 627bp band shows that it was homologous to a fragment on chromosome 2. Meanwhile, the results of those cytokines on a cohort without non-psoriasis were slightly exposed in around 48 hours. In conclusion, the mononuclear cells (CD14+) in the cohort with guttate psoriasis is highly more sensitive with a lysis of Streptococcus pneumonia than the non-psoriatic cohort in TNF-α expression, and IL10 and HBEGF of the psoriatic one are also simultaneous and extended during the inflammation and wound healing. Furthermore, the 620bp band might relate to edit progressing pre-mRNA IL10 in the guttate psoriasis.

Keywords

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References