Significance of soluble CD30 and length polymorphism of CD30 regulating gene in Korean atopic dermatitis patients

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Atopic dermatitis (AD) is a chronic relapsing inflammatory skin disease whose clinical manifestations are pruritus and recurrent eczema. Although the pathophysiology of AD is unclear, it is thought that a cytokine-mediated immune dysregulation, Th1/Th2 imbalance is an important pathogenic mechanism of AD. In recent studies, CD30 is proposed to be one of the activation markers of Th2 immunity and soluble CD30 (sCD30) concentration is higher in AD patients compared with healthy controls. We investigated the relationship between sCD30 level and AD in Korean population and whether sCD30 level is correlated with the severity of AD. This study included 69 AD patients and 50 healthy controls. We assessed the protein levels of sCD30 in the peripheral blood and the clinical severity of AD was evaluated by SCORAD index. A significantly higher level of sCD30 was noted in AD patients and it was statistically significant (P<0.001). And the level of sCD30 is higher in severe AD patients than mild to moderated patients, however it was not statistically significant (p=0.18). In addition, we also investigated that the length polymorphism of microsatellite, inhibiting factor of promoter of CD30 gene, may induced changes in sCD30 expressions in patients with AD.

Key Words : atopic dermatitis, soluble CD30, length polymorphism, gene