Gaoyun Yang, J Clin Cell Immunol 2014, 5:5
http://dx.doi.org/10.4172/2155-9899.S1.017

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Conference and Exhibition on
Clinical & Cellular Immunology
September 29-October 01, 2014 DoubleTree by Hilton Baltimore-BWI Airport, USA

The study of chemokine-like factor 1 (CKLF1) antagonist peptides C19 in mouse model with atopic dermatitis

Gaoyun Yang
Beijing Friendship Hospital of Capital Medical University, China

Objective: To explore the function of chemokine-like factor 1 (CKLF1) antagonist peptides C19 in the mouse model with atopic dermatitis.

Methods: The mouse model of atopic dermatitis were established by sensitization with ovalbumin (OVA) through the skin.60 BALB/c mice were randomly divided into atopic dermatitis (AD) group, control group, prevention, and treatment group, 15 mice in each group. The atopic dermatitis group and control group BALB/c mice were sensitized with OVA (100μg) or saline applied in 100μl to a sterile patch. The patch was placed for a 1-week period and then removed. Two weeks later, an identical patch was reapplied to the same skin site. Each mouse had a total of three 1 week exposures to patch separated from each other by 2 week intervals. Prevention group 1 day prior to the weekly sensitization and interval of 2 weeks in the middle of the stage was local subcutaneous injection with CKLF1 antagonist peptides C19 5μg in 20μl each time. The sensitization process of treatment group was the same as dermatitis groups, and 24h after the sensitization treated with CKLF1 antagonist peptides C19 10μg in 20μl local subcutaneous injection in mice skin, once every five days, a total of 2 times. To detect the gene expression profile of microRNA in total RNA of every groups by ULS™ fluorescence detection calibration.

Results: The AD group showed local inflammation in the skin compared with the control group and prevention group, epidermal thickening and significant inflammatory cellular infiltration were observed and the lesion of treatment group mice improved after 2 times treatment with C19. To detect the gene expression profile of microRNA in total RNA of every groups by ULS™fluorescence detection calibration, the data indicate that the expression level of microRNA which regulate the gene of inflammatory cytokines in the lesions was up-regulated in CKLF1 antagonist peptides C19 treatment group and prevent group.

Conclusions: The expression levels of microRNA which may be involved in regulate the specific gene of inflammatory cytokines in the lesions was down-regulated in mouse model of the atopic dermatitis group, and after topical treatment and prevention, the specific gene of inflammatory cytokines in the lesions was up-regulated, which suggested that prevention and treatment with the CKLF1 antagonist peptides C19 maybe played an important role in atopic dermatitis, and contribute to the further understanding and exploring new anti-inflammatory polypeptide for the treatment of atopic dermatitis.

Biography

15 years of clinical work experience in dermatology department: 10 years of skin diseases research experience in R & D department of Johnson & Johnson DuPont Pharmaceuticals and Peking Union Medical College, Published more than 50 research or clinical study papers Membership of Professional Society Foundation Fellow of the Asian Academy of Dermatology and Venereology, Board Member of Psoriasis Group of Chinese Society of Dermatology Editor of the "*Journal of Practical Dermatology*", "*Chinese Journal of Dermatovenereology*" Member of AAD, SID, AAI, SAPA, CBA.

gaoyun@ccmu.edu.cn