



CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

COSMETIC ALLERGENS AND PRODUCTS OF COSMETICS CONTACT DERMATITIS IN CHINESE

Ying Zou Zou⁽¹⁾

Shanghai Dermatology Hospital, Skin & Cosmetic Research Department, Shanghai, China⁽¹⁾

Background: There were increasing cosmetic adverse reaction in China, mostly cosmetic contact dermatitis (CCD), with the development of cosmetics industry.

Objective: To identify the allergens of cosmetics which responsible for CCD in China.

Methods: Totally 677 patients suspected CCD from dermatological clinic in Shanghai Dermatology Hospital, were patch-tested with a cosmetic series including 56 allergens. And 254 patients patched with possible culprit cosmetics (total 1104 products). Allergens were applied to the upper back of patients for 48 hours, the results were recorded at Day 3 to Day 5 according to ICDRG standard scoring system.

Results: Three hundred and ninety-three (58.05%) subjects showed positive reaction during patch testing. Females (375/642, 58.41%) showed higher rate of patch testing and positive reaction than males (18/35, 51.43%). The top 5 leading allergens were methylisothiazolinone (35.45%), methylisothiazolinone + methylchloro-isothiazolinone (MCI/MI, 30.13%), shellac (12.41%), thimerosal (10.49%) and methyldibromo glutaronitrile (5.17%). MCI/MI elicited positive patch test reactions in 73.53% of MI-positive patients. Of these patched with cosmetic products, 27 patients (10.63%) revealed totally 41 positive reactions, including 28 skin care products(68.29%), 8 color decorating (19.51%)etc..

Conclusion: Preservative, especially methylisothiazolinone, MCI/MI and thimerosal were the most common cosmetic allergens in China. The high prevalence may relate with their market prevalence and regulation of China. skin care products occupied the most allergic reaction of CCD in China. Clinical diagnosis was highly recommended for suspected CACD patients. Future comparative investigation with large sample size should benefit the cosmetovigilance and market surveillance.

Keywords: cosmetic adverse reaction; cosmetic contact dermatitis; patch test; pathogenic components; cosmetic series allergens.

