



CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

## ALLERGIC CONTACT DERMATITIS IN BULGARIAN CHILDREN REFERRED FOR PATCH TESTING

*Bisera Kotevska Trifunova<sup>(1)</sup> - Zdravka Demerdjieva<sup>(2)</sup> - Jana Kazandjieva<sup>(3)</sup>*

*Acibadem Cityclinic Tokuda Hospital Sofia, Dermatology, Sofia, Bulgaria<sup>(1)</sup> - Acibadem Cityclinic Tokuda Hospital, Dermatology, Sofia, Bulgaria<sup>(2)</sup> - Medical University - Sofia, Dermatology, Sofia, Bulgaria<sup>(3)</sup>*

**Background:** Allergic contact dermatitis is a common diagnosis in childhood with a prevalence of about 20% of children. Unfortunately, despite the large number of affected patients, this disease often remains missed or misdiagnosed. Like adults, the percentage of children affected increases with each year. The reasons are two - exposure of more and more allergens to this age group and more frequent use of patch testing to detect the cause/agent for ACD.

**Objective:** We patch tested and evaluated the frequency of sensitization in 153 children with clinically suspected allergic contact dermatitis in order to identify the main sensitizing substances, and sex and age differences.

**Materials and Methods :** Between 2014 and 2018, 153 children aged 0-18 years were patch tested. Analysis of the database included identification of the most common allergens in two age groups( 0-11 and 12-18 year) and comparison of the results with the data from 2096 adult patients.

**Results:** Our results showed that in the first study group of 59 children aged 0-11 years, the positive response rate was 52.54% and more than one positive response was found in 40.68% of the children. In this age group, the most common allergens were neomycin, methylisothiazolinone, cobalt, nickel, and kathon. The results in the second study group of 94 children aged 12-18 years showed that the positive response rate was 54.43%, with 43.79% of the children positive to more than 1 allergen. In this age group, the top allergens were nickel, cobalt, kathon, N-N-phenylenediamine, and methylisothiazolinone.

**Conclusion:** The frequency of ACD in children is increasing over time. Our findings support the concept that the children with persistent eczema should be referred for patch testing and can be tested with equal to the adults concentrations of patch test allergens.

