

Table 1. Toxin-producing properties SA in children with moderate (seven patients) and severe (eight patients) AD

Patients	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8
skin	0	0	0	0	0	SEA, SEB	0	0	SEA, SEB, TSST-1	0	SEA, SEB	SEB	0	SEB, SEC	SEA, SEB, SEC, TSST-1
feces	0	0	0	0	0	TSST-1	TSST-1	0	SEA, SEB, TSST-1	0	SEA	0	0	SEA, SEB	SEA, SEB

they were subsequently hospitalized showed other toxin-producing properties.

Conclusion: SA has a more pronounced pathogenic properties in severe AD and strains isolated from different biotopes possess various toxin-producing properties.

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Contact allergy and allergic contact dermatitis in children and adolescents with chronic eczema

Spiewak, R¹; Grubska-Suchanek, E²; Pasnicki, M³; Krakowski, A⁴; Cisowska, A⁵
¹Department of Experimental Dermatology and Cosmetology, Jagiellonian University, Krakow, Poland; ²Department of Dermatology, Venereology and Allergology, Medical University of Gdansk, Gdansk, Poland; ³NZOZ Allergicus-Dent, Zary, Poland; ⁴NZOZ Krak-Med, Kolbuszowa, Poland; ⁵Dermatology Practice, Kamienna Gora, Poland

Background: Patch test is the gold standard of eczema diagnosis in every age group. The prevalence of allergic contact dermatitis (ACD) in children and adolescents is comparable to that of atopic dermatitis. The aim of the present study was to analyse the frequency of contact allergy and ACD in children and adolescents with chronic eczema.

Method: KRAK study is a multi-centre patch test study of patients with chronic eczema. Eleven participating Polish dermatology and allergy centres submit data of all patients patch tested with the Polish Baseline Series (Chemotechnique Diagnostics). The series consists of the European Baseline Series plus propolis and palladium – two relevant sensitizers in Polish paediatric and adult populations. Among all data

submitted in 2011 by the KRAK study group members, 127 patch test results of children (0–13 years-old, N = 64) and adolescents (14–20 years-old, N = 63) were identified and included into the present study.

Result: Altogether, 127 children and adolescents (36 boys and 91 girls) were patch tested in five out of 11 participating centres. At least one positive reaction to happens from the Polish Baseline Series was recorded in 83 patients (65.4%). In 59 patients (46.5%), the tests were considered clinically relevant (i.e. were deemed as the ultimate cause of their eczema). The figures for frequent sensitizers (at least 3% of the study group) are shown in the table below.

No differences in sensitization rates were observed between prepubertal boys and girls (0–13 years-old). Among adolescents, girls were more frequently sensitized to nickel (46.9% vs 14.3% in boys, *P* = 0.058), while boys were more frequently sensitized to Fragrance mix I (28.6% vs 4.1% in girls, *P* = 0.025). There was also a tendency to more frequent propolis sensitization among boys (both age groups combined: 16.7% vs 6.6% in girls, *P* = 0.080). Also interestingly, four patients (3.1%) reacted to palladium but not to nickel, suggesting that under modern environmental exposures palladium is not just a mere cross-reactivity to nickel, as believed previously.

Conclusion: Allergic contact dermatitis is a frequent cause of eczema in children and adolescents. These patients are most frequently sensitized to metals and cosmetic ingredients. Natural remedies containing balsam of Peru and propolis should be

avoided in children with eczema due to frequent sensitizations. Palladium and propolis are frequent sensitizers and should be included into routine patch testing of children.

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Sensitisation to foods and dust mite in Brazilian pediatric patients with atopic dermatitis

Swensson, A; Castro, A; Casagrande, R; Bittencourt, T; Yonamine, G; Pastorino, A; Jacob, C
 Department of Pediatrics, School of Medicine Universidade de São Paulo, São Paulo, Brazil

Background: Atopic dermatitis (AD) is a complex disease that can be or not related to atopy. The IgE levels and the presence of sensitisation has been associated to AD severity. The aim of this study is to evaluate the allergen sensitisation profile in patients with moderate or severe atopic dermatitis in Brazilian patients from an allergy reference center.

Methods: About 66 patients with diagnosis of atopic dermatitis according Hanifin e Rajka criteria (mean age 10 years) followed at a reference center for allergic disease in pediatric patients were included. The severity was evaluated according SCORAD (SCORing Atopic Dermatitis) criteria. Specific IgE was measured to the following allergens: *Blomia tropicalis*, *D pteronyssinus*, egg white, cow's milk and its fractions. Sensitisation was considered positive when the ImmunoCAP values were ≥ 0.35 kU/l and multi sensitisation was considered when patients presented positive specific IgE for all allergens tested.

Table 1

Hapten	Total, positive (n, %)	Total, clinically relevant (n, %)	Children, positive (n, %)	Children, clinically relevant (n, %)	Adolescents, positive (n, %)	Adolescents, clinically relevant (n, %)
Nickel sulphate 5% pet.	44 (34.6)	36 (28.3)	19 (29.7)	14 (21.9)	25 (39.7)	22 (34.9)
Cobalt chloride 1% pet.	28 (22.0)	15 (11.8)	16 (25.0)	9 (14.1)	12 (19.0)	6 (9.5)
Potassium dichromate 0.5% pet.	26 (20.5)	15 (11.8)	19 (29.7)	10 (15.6)	7 (11.1)	5 (7.9)
Paraphenylenediamine 1% pet.	12 (9.4)	6 (4.7)	8 (12.5)	5 (7.8)	4 (6.3)	1 (1.6)
Propolis 10% pet.	12 (9.4)	5 (3.9)	11 (17.2)	5 (7.8)	1 (1.6)	0 (0.0)
Palladium chloride 2% pet.	12 (9.4)	4 (3.1)	6 (9.4)	2 (3.1)	6 (9.5)	2 (3.2)
Fragrance Mix I 18% pet.	10 (7.9)	4 (3.1)	4 (6.3)	2 (3.1)	6 (9.5)	2 (3.2)
Neomycin sulphate 20% pet.	6 (4.7)	2 (1.6)	4 (6.3)	2 (3.1)	2 (3.2)	0 (0.0)
Balsam of Peru (<i>Myroxylon pereirae</i>) 25% pet.	6 (4.7)	1 (0.8)	4 (6.3)	1 (1.6)	2 (3.2)	0 (0.0)
Colophonium 20% pet.	5 (3.9)	4 (3.1)	2 (3.1)	2 (3.1)	3 (4.8)	2 (3.2)
Wool alcohols (lanolin) 30% pet.	5 (3.9)	3 (2.4)	3 (4.7)	3 (4.7)	2 (3.2)	0 (0.0)
Paraben Mix 16% pet.	4 (3.1)	4 (3.1)	3 (4.7)	3 (4.7)	1 (1.6)	1 (1.6)
Kathon CG (MI/MCI) 0.01% aqua	4 (3.1)	2 (1.6)	3 (4.7)	2 (3.1)	1 (1.6)	0 (0.0)