

Occupational and non-occupational allergic contact dermatitis and quality of life: a prospective study*

Dermatite de contato alérgica ocupacional e não-ocupacional e qualidade de vida: um estudo prospectivo

Catiussa Spode Brutti¹
Taciana Cappelletti³
Ana Paula Salin Menegat⁴

Renan Rangel Bonamigo²
Gabriela Mynarski Martins-Costa⁴

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Abstract: Attempted to evaluate and compare the impact on quality of life of occupational and non-occupational ACD and to identify the most frequently involved allergens. A quality of life questionnaire was applied. We noted moderate impact on the quality of life of both groups, without a statistical difference. Our study corroborates previous general data on the prevalence of nickel sulphate and paraphenylenediamine as the most common allergens. Potassium bichromate was shown to be one of the main occupational allergens and thimerosal as the main non-occupational allergen in our sample.

Keywords: Allergens; Dermatitis, contact; Quality of life

Resumo: A dermatite de contato alérgica é doença frequente na prática dermatológica. No presente estudo procurou-se avaliar e comparar o impacto na qualidade de vida quando de origem ocupacional e não ocupacional e os antígenos alergênicos mais envolvidos. Aplicou-se o questionário de qualidade de vida. Verificou-se impacto moderado na qualidade de vida nos dois grupos, sem diferença estatisticamente significativa. Essa pesquisa corrobora dados prévios gerais de prevalência do sulfato de níquel, seguido pela parafenilenodiamina como alérgenos mais comuns. Nesta amostra, o bicromato de potássio revelou-se um dos principais alérgenos ocupacionais e o thimerosal, um dos principais alérgenos não ocupacionais.

Palavras-chave: Alérgenos; Dermatite de contato; Qualidade de vida

REPORT

Dermatoses in general may be associated with psychosocial alterations as well as with physical and organic consequences for people at work or leisure.¹ Little data exists in published sources on the impact of allergic contact dermatitis on quality of life as a distinct feature of irritative contact dermatitis, particularly when it is classified as an occupational disease.² Quality of life is an increasingly important theme in health research, and a better understanding of the concept of quality of life could endow professional

practitioners with new strategies for managing patient treatment.³ This study focused on evaluating the quality of life of patients with allergic contact dermatitis (ACD), comparing the quality of life of those patients with occupational and non-occupation allergic contact dermatitis and identifying the main occupational allergenic antigens.

Our study was approved by the Ethics in Research Committee, and participants signed a free and informed form of consent. This was a cross-sec-

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¹ Brazilian Army dermatologist at the Santa Maria Garrison Hospital - Santa Maria (RS), Brazil.

² Dermatologist, PhD in Dermatology and Head of the Dermatology Service at the Universidade de Ciências da Saúde de Porto Alegre - Porto Alegre (RS), Brazil.

³ Physician - Internal Medicine Resident at the Caxias do Sul General Hospital - University of Caxias do Sul (UCS-HGCS) - Caxias do Sul (RS), Brazil.

⁴ Medical Resident in the Dermatology Department, Porto Alegre Federal University of Health Sciences (UFCSA) - Porto Alegre (RS), Brazil.

tional and prospective study undertaken between October 2010 and October 2011, involving patients with contact dermatitis seeking treatment at the Dermatology Service Outpatient Clinic at the Federal University of Health Sciences (UFCSPA) in the Brazilian city of Porto Alegre. Patients of both genders over the age of 18 years with allergic contact dermatitis underwent contact tests. Patients contraindicated for contact tests, patients with irritative contact dermatitis and patients with "angry back syndrome" were excluded. The collection instruments for research employed were: a questionnaire based on the Dermatology Life Quality Index - DLQI (index 0-30) according to Finlay et al, and the "Contact Tests" protocol, used in the UFCSPA Dermatology Service in accordance with the norms approved by the Brazilian Study Group on Contact Dermatitis.^{4,5}

39 of the 62 contact tests were positive. Three cases with irritative contact dermatitis were excluded and two with "angry back syndrome" (more than 3 positive substances), leaving 34 patients for analysis: 10 with occupational ACD and 24 with non-occupational ACD. Of the total number of 24 female patients, 19 were from the non-occupational group and among the 10 male patients 5 fell into each group. There was no significant difference as to gender among the groups. When comparing the mean of the DLQI

scores the sample contained: ACD occupational group: 11.9 ± 5.3 ; ACD non-occupational group: 9.38 ± 7.31 , with no significant difference ($p=0.3$). When the scores were analyzed however a moderate to very high impact was revealed in the patients' quality of life.

Nickel sulphate and paraphenylenediamine were the most prevalent allergens in the contact tests.

Potassium bichromate and epoxy resin were the most frequent allergens in the patients with occupational dermatitis, $p=0.02$. Whereas a possible limitation may have been the sample size, the findings nevertheless succeeded in demonstrating the effects of dermatosis on patients' quality of life, corroborating previous general data on the prevalence of nickel sulphate followed by paraphenylenediamine as the commonest allergens.⁶

In this sample, potassium bichromate (present in cement) was revealed as one of the main occupational allergens. Thimerosal, a component of products for topical use and cosmetics, was one of the main non-occupational allergens in the same sample.

This study provides original data on the reality of ACDs which impact on quality of life. A better understanding of the effects on people of ACDs would allow professionals to employ new management strategies for treating their patients. □

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1. Brazilian Army dermatologist at the Santa Maria Garrison Hospital – Santa Maria (RS), Brazil.
2. Doctor - Preceptor of the Dermatology Service at the Porto Alegre Federal University of Health Sciences (UFCSPA) - Porto Alegre (RS), Brazil.
3. Physician - Internal Medicine Resident at the Caxias do Sul General Hospital - University of Caxias do Sul (UCS-HGCS) - Caxias do Sul (RS), Brazil.
4. Medical Resident in the Dermatology Department, Porto Alegre Federal University of Health Sciences (UFCSPA) - Porto Alegre (RS), Brazil.

MAILING ADDRESS:

Catiussa Spode Brutti
Rua Sarmento Leite, 245 - Centro
90050-170 - Porto Alegre - RS
Brazil
E-mail: catibrutti@yahoo.com.br

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