

NICKEL CONTACT DERMATITIS IN FORTALEZA, CEARÁ, BRAZIL (1993-1994)

Maria José N. DIÓGENES, Raquel Maia de MORAIS, Fernando F. CARVALHO, Océlia B. VERAS & Tereza Elizabeth MEIRELES

SUMMARY

This work consists in an evaluation of the occurrence of nickel contact dermatitis, its distribution between sexes and in which parts of the body the dermatitis usually occurs. It was accomplished a two year (1994-1995) retrospective study of 404 patch-tested patients which had previous clinical diagnosis of contact dermatitis. The occurrence of nickel sensitization was 19.8%. 88.8% of these 19.8% were women and the rest, 11.2%, were men. The lesions were present predominantly on hands, forearms, earlobes and feet. The authors comment about possible variations of occurrence of nickel contact dermatitis in rural areas and/or tropical countries.

KEYWORDS: Contact dermatitis; Nickel; Fortaleza; Ceará; Brazil.

INTRODUCTION

Contact dermatitis may occur by sensitizing or irritant action of substances that get in contact with the skin. Nickel is one, among the most important of these substances. Previous studies showed that it was responsible for 20% of all cases of contact dermatitis. 95% of these 20% are women⁴. The prevalence of nickel allergy in the general population is between 8 and 10%⁵. In hairdressers, however, the prevalence may be as high as 27%⁵. In São Paulo, Brazil, studies of adult population with no clinical history of contact dermatitis showed 8% of sensitization to nickel¹. The objective of this study was to determine the occurrence of nickel contact dermatitis in Fortaleza-Ceará-Northeastern Brazil, its proportion between sexes and the anatomical topographies most commonly affected considering that variations exist depending on climate, professions, other activities and local customs which still have not been studied in Tropical Countries.

PATIENTS AND METHODS

Four hundred and four patients with clinical diagnosis of contact dermatitis attended at Walter Cantídio Hospital – Federal University of Ceará, which is responsible for all public contact dermatitis treatment in Fortaleza, were patch-tested with a standard and complementary battery of contact dermatitis (ALERBRÁS Laboratory – Rio de Janeiro, Brazil). The tests were applied on the back of the patients. It was established 48 h and 96 h to determine the reaction degree according to the standardization of the International Contact Dermatitis Research Group (ICDRG).

RESULTS

Among all tested patients, 80 (19.8%) were sensitive to nickel sulphate. 71 (88.8%) of these were women and 9 (22.2%) were men.

Among tested women 71 (22.7%) were positive to nickel while only 9 tested men (9.9%) showed positive reaction to nickel.

The most common body parts where the dermatitis occurred were hands, forearms, earlobes and feet.

DISCUSSION

The results show high occurrence of nickel sensitization specially in women, what confirms literature. Nickel sensitization is more common in women than in men due to the higher exposition of women to nickel sources. Traditional causes of nickel dermatitis in women are direct contact with inexpensive jewellery, wristwatches, spectacles, garments and cleaning products². It was observed that nickel sensitized patients usually did not look for medical assistance with complaints of earlobe lesions even though this is the most typical location of nickel dermatitis. What apparently happens is an easy association, by the patient, of the dermatitis problem and its cause (cheap earring), thus removing it and consequently there is healing of lesions on ears heal. But in anamnese or clinical examination of patients with complaints of lesions in other locations such as hands, forearms and feet, there was always a history of earlobe injury. Men are more frequently sensitized by

occupational exposure. Nickel contact dermatitis in areas in contact with coins, such as trousers pockets, was not notified probably because Brazilian coins do not contain nickel, fact proved by a negative result in Dimethylglyoxime Nickel Spot Test^{3,4,5}.

This study shows similar results to world literature. It is emphasized that the urban population studied may have similar costumes elsewhere in the world. It is observed that the substitution of common cleaning products to "Oiticica soap" produced in rudimental factory of Jaguaribe-Ceará solved the problem of hand contact dermatitis in nickel sensitized women. This fact instigate us to pursue new study of rural population since they don't contact common sources of nickel sensitization such as industrialized cleaning products and cheap jewellery.

RESUMO

Dermatite de contato por níquel em Fortaleza, Ceará, Brasil (1993-1994)

Este trabalho consiste numa avaliação da ocorrência de dermatite de contato por níquel num País Tropical, da sua distribuição entre os sexos e da determinação da topografia anatômica mais acometida. Um estudo retrospectivo e seqüencial por dois anos (1994-1995) foi realizado em 404 indivíduos que tinham dermatite de contato como hipótese clínica e que foram submetidos ao teste de contato ou "patch test". A ocorrência de

sensibilização ao níquel foi 19,8%, 88,8% dos quais eram mulheres e o restante, 11,2%, eram homens. As lesões localizavam-se predominantemente nas mãos, antebraços, lóbulos auriculares e pés. Os autores comentam sobre possíveis variações na ocorrência de dermatite de contato por níquel nas áreas rurais e/ou nos países tropicais.

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