

Dermal contact dermatitis caused by allergy to palladium

NORITO KATOH, SHINYA HIRANO, SABURO KISHIMOTO AND HIROKAZU YASUNO

Department of Dermatology, Kyoto Prefectural University of Medicine, Kawaramachi-Hirokoji, Kamigyo-ku, Kyoto 602-8566, Japan

Key words: palladium; dermal allergic contact dermatitis; dental alloys; dental prosthesis; lack of nickel allergy; face.
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Case Report

A 70-year-old woman had a 1-year history of itchy, edematous erythematous eruptions over the mandibles, forehead and frontal scalp (Fig. 1). She had been treated with topical corticosteroid without success. No enanthema was detected.

Histopathological examination revealed a dense perivascular lymphocytic infiltrate in the dermis, without epidermal involvement, compatible with dermal contact dermatitis (Fig. 2). Patch testing with a metals series resulted in a ++ reaction to palladium chloride (1% aq.). The edematous and erythematous reactions were still active 1 month later. No reaction was detected to nickel or other dental alloys. She had not worn jewelry for a couple of years.

Her dental crowns containing palladium were replaced with a resin substitute, and the skin lesion improved re-

markedly within 1 month. However, she complained of discomfort with these prostheses and requested that the former ones be replaced. Infiltrated erythema on the mandible recurred 1 day after fitting the dental prostheses containing palladium. The patient has not showed any recurrence of symptoms after further replacement with palladium-free crowns.

Comment

Since most patients with palladium allergy are also allergic to nickel, monoallergy to palladium is considered

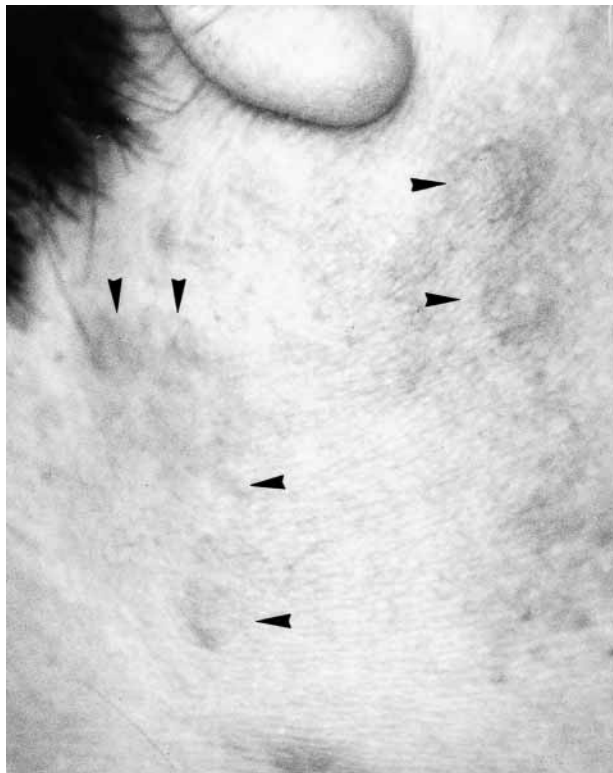


Fig. 1. Edematous erythematous papules on the cheek and mandible (arrowheads).



Fig. 2. Dense perivascular lymphocytic infiltrate in the dermis.

to be rare and information concerning the clinical and histopathological features of palladium-induced contact dermatitis is extremely limited (1, 2). The clinical and histological characteristics observed in this case were similar to those described for so-called dermal allergic contact dermatitis, which is reported to be commonly induced by gold allergy (3, 4). In dermal contact dermatitis due to gold, gold appears to accumulate in dermal macrophages, leading to a persistent inflammatory reaction (4). We suspect in this case that palladium liberated from dental alloys was absorbed and then retained in the dermis, resulting in dermal allergic contact dermatitis.

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A 15-year review of our MOAHLFA index

H. R. SMITH, S. H. WAKELIN, J. P. MCFADDEN, R. J. G. RYCROFT AND I. R. WHITE

St. John's Institute of Dermatology, St. Thomas's Hospital, London, SE1 7EH, UK

Key words: MOAHLFA index; contact dermatitis clinic populations; atopy; hand. © Munksgaard, 1999.

The MOHL index was originally used to compare the patch test clinic populations of different centres (1). The index specified the %s of male, occupational, hand eczema and leg ulcers/stasis eczema cases seen. In 1985,

Anderson et al. (2) included atopy in the index (MOAHL). In 1989, Christophersen et al. (3) showed an effect on results of sex, location, age and atopic status, but not of occupation. Schnuck et al. (4) noted interclinic variations also in the face as a location and age (>40) and suggested a MOAHLFA index. We have examined the MOAHLFA index in our contact dermatitis clinic over 15 years.

Methods and Results

Our contact dermatitis clinic database was analysed between 1983–1997. 24,386 patients were seen in total, with an annual average of 1,626. The annual MOAHLFA index was plotted sequentially as a % (Fig. 1). Changes in the % index were then related to the numbers of patients seen over that period.

Discussion

Even with the wide variation in published indexes, our index during any year has a notably lower leg case load (1–4). Fig. 1 demonstrates the stability of the % index in a single centre over a 15-year period. However, there are 2 exceptions to this stable pattern: the atopic and hand indexes.

Over the last 3 years, there has been an increase in the % and actual number of atopic cases (Fig. 1). The reasons are probably multifactorial, including the increase in background prevalence over the last 20 years (5), a possible change in doctors' referral patterns, and a change in clinic research interests. The % hand index and number of hand patients seen has gradually declined from 1983 to meet the face index (Fig. 1). Although the majority of occupational cases involve the

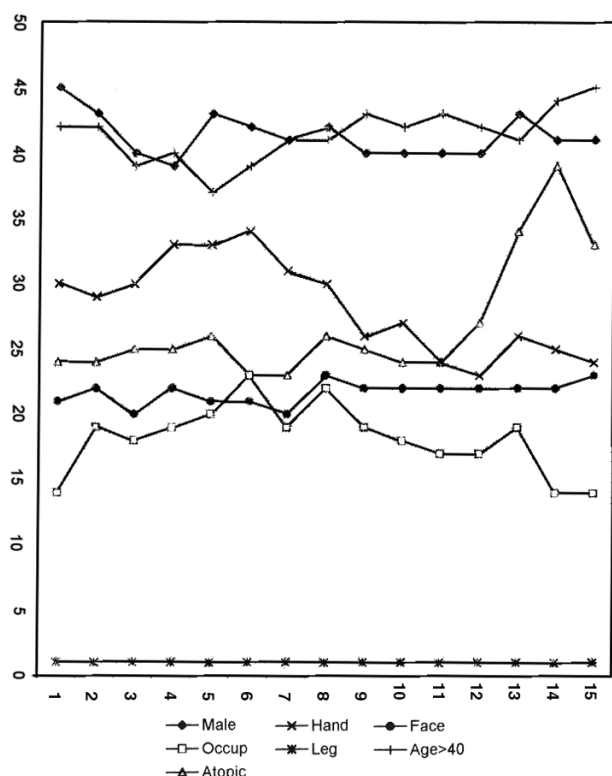


Fig. 1. % MOAHLFA index 1983–1997.