

Contact Dermatitis: *Alergológica-2005*

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■ Abstract

Two hundred-six cases of contact dermatitis were diagnosed in patients with a mean age of 42.5 years and a clear predominance of females (2.5:1). The prevalence of the disorder was 4.1% and a personal history of eczema in 23.8% of cases. Almost 50% of patients reported that their condition affected their quality of life. In 29.9% of patients there was an associated worsening irritative component of the lesions. As for the etiology, the main causes were metals, perfumes and rubbers. No positive results were found to lactone mixtures or tixocortol pivalate.

Key words: Contact dermatitis. Prevalence. Metals. Perfumes. Rubbers.

■ Resumen

Se diagnosticaron 206 casos, con una media de edad de 42,5 años y un predominio de mujeres (2,5:1). La prevalencia fue del 4,1%. Los antecedentes personales de eccema 23,8%. Cerca del 50% de los pacientes referían repercusión de su clínica en su calidad de vida. En un 29,9% se relacionó un componente irritativo agravante de sus lesiones. En cuanto a la etiología las primeras causas fueron: metales, perfumes y gomas, no se encontraron positividad a Mezcla lactonas ni Pivalato de tixocortol.

Palabras clave: Dermatitis de contacto. Prevalencia. Metales. Perfumes. Gomas.

Introduction

It is important to have available data on the prevalence, clinical features, intercurrent and etiologic factors of contact dermatitis as it is a disorder which is receiving increasingly more attention in our specialty.

In the future, taking into account the developments in diagnostic tests and the importance and significance of this disorder in the work sphere and in drug allergies, it would be desirable to continue with studies of this type so as to be able to better and more fully understand the diagnosis and treatment of contact dermatitis.

Material and Methods

The results from epicutaneous tests from the standard Spanish series for contact dermatitis were recorded by taking readings at 48 and 96 hours, and evaluating erythema-infiltration, papules and vesicles. These were the same parameters as those used in the evaluation of epicutaneous tests in the *Alergológica-1992* study [1] and conformed to norms established by international research groups in contact dermatitis.

Results

Two hundred-six cases of contact dermatitis were diagnosed, which represents a prevalence of 4.1%. The mean age of the patients was 42.5 years and females clearly outnumbered men (2.5:1).

In 23.8% of patients there was a personal history of eczema and a family history in 14.1%.

The waiting time for the analysis of this disorder was 77.53 days.

The number of cases with an added irritative component was 29.9%.

As for the impact of the disorder on patients' quality of life, 45.5% of patients recognized the physical repercussions of their lesions and 41.9% were affected psychologically by them.

15.8% of jobs were considered contaminating and 44.2% non-contaminating.

The presenting complaint was due to skin problems in 67% of cases and in 6.8% due to problems with drugs.

In the etiology of contact dermatitis (Table 1), the leading causes were metals, nickel and cobalt, together with chromium, with a total of 91 cases.

Thiomersal is in third place with 13 cases, which represents 6.2% of all causes.

Table 1. Etiologic Agents for Contact Dermatitis in *Alergológica*-2005.

Etiologic Agent		Cases (%)	Etiologic Agent		Cases
1	Nickel sulfate	67 (31.9%)	14	Rosin	4 (1.9%)
2	Cobalt chloride	15 (7.1%)	14	PTBF resin	4 (1.9%)
3	Thiomersal	13 (6.2%)	14	Ethylenediamine	4 (1.9%)
4	Fragrance mix	12 (5.7%)	17	Wool alcohols	3 (1.4%)
5	PPD	11 (5.2%)	17	Epoxy resin	3 (1.4%)
6	Potassium dichromate	9 (4.3%)	17	Mercury	3 (1.4%)
7	Thiuram mix	7 (3.3%)	20	Neomycin	2 (1.0%)
8	Balsam of Perú	6 (2.9%)	20	Black rubbers	2 (1.0%)
8	Cainas mix	6 (2.9%)	20	Paraben mix	2 (1.0%)
8	Kathon	6 (2.9%)	20	Quaternium	2 (1.0%)
8	Mercaptobenzothiazole	6 (2.9%)	24	Quinoline mix	1 (0.5%)
12	Mercapto mix	5 (2.4%)	24	Formaldehyde	1 (0.5%)
12	Carba mix	5 (2.4%)	24	Budenoside	1 (0.5%)
			27	Lactone mix	0 -
			28	Tixocortal pivalate	0 -
			29	Euxyl K400	0 -

Fragrance mix is in fourth place with 11 cases, to which can be added 6 cases of balsam of Peru, 6 cases of Kathon (isotiazolinone), 4 cases of ethylenediamine and 2 cases of parabens, making a total of 30 cases which gives a clear indication of what substances should be taken into consideration when analyzing a contact dermatitis due to cosmetics or topical treatments.

The group consisting of rubbers accounted for 18 cases.

Finally, it is worth pointing out that no sensitizations were found to lactone mixtures, tixocortal pivalate and Euxyl K 400 and only 1 case of sensitization to Budesonide.

Discussion

The prevalence of cases of contact dermatitis in *Alergológica*-92 was 2.5% [1], lower than the 4.1% found in this study.

As has been found in other studies [2, 3] there was also a predominance of females.

The waiting time of 77.53 days is similar to the other disorders in *Alergológica*-2005, which was 75.82 days.

The family history of eczema in 14.1% of patients is similar to the 16.1% described in *Alergológica*-92 [1]. However, the personal history of eczema in 23.8% of cases is higher than the other patients in *Alergológica*-2005, where only 8.6% reported personal histories.

The number of cases (29.9%) with an irritative component is very low if we take into account experience and the numerous references which indicate that irritation is a factor which frequently accompanies allergic contact dermatitis [4, 5].

Results on the impact of this disorder on quality of life are similar to other causes which affect about 50% of patients [6].

If we compare the etiologic results with a multicenter European study [7] (Table 2), nickel sulfate also occupied

Table 2. Comparison of Etiologic Agents for Contact Dermatitis in *Alergológica*-2005 and *Alergológica*-1992

Etiologic Agent for Contact Dermatitis	<i>Alergológica</i> 2005 Cases (%)	<i>Alergológica</i> 1992 Cases (%)
Nickel sulfate	67 (31.9%)	44 (59.5%)
Potassium dichromate	9 (4.3%)	19 (25.7%)
Cobalt chloride	15 (7.1%)	13 (17.6%)
Paraphenylenediamine	11 (5.2%)	8 (10.8%)
Mercapto	5 (2.4%)	6 (8.1%)
Thiuram	7 (3.3%)	5 (6.8%)
Neomycin sulfate	2 (1.0%)	3 (4.1%)
Rosine	4 (1.9%)	3 (4.1%)
Wool alcohols	3 (1.4%)	2 (2.7%)
Balsam of Peru	6 (2.9%)	2 (2.7%)
Formaldehyde	1 (0.5%)	2 (2.7%)
Local alcohols	6 (2.9%)	1 (1.4%)
Parabens	2 (1.0%)	1 (1.4%)
Epoxy resins	3 (1.4%)	1 (1.4%)
Ethylenediamine	4 (1.9%)	0 -
Fragrance mix	12 (5.7%)	-
Cinamilic alcohol	-	-
Total number of cases	195	96

the first place, followed by cobalt chloride (7.8%), fragrance mix (7.1%), balsam of Peru (6.1%) and potassium dichromate (5.3%) from which it can be seen that we share three substances in the top places in the European series.

Thiomersal is currently not included in the standard European series, due to the low relevance of positive tests. However, in a recent study it was considered that the skin test with Thiomersal was relevant in 15.5% of patients [8].

The prevalence of sensitization to metals has apparently decreased in comparison with *Alergológica*-92 (Table 2). This decrease can be explained by the regulations that limit the concentrations of metals in different substances [9, 10] and in the case of chromium due to the few occupational studies that have been carried out. There has also been a decrease in the prevalence of formaldehyde in comparison with *Alergológica*-92, possible as a result of the restrictive measures in the use of this preservative in cosmetics [7].

Local anesthetics have increased in this study to 2.9% (Table 1). This is in contrast with the data from the European study in which local anesthetics did not reach 1%, the limit proposed to be able to include a contactant in the standard series [7].

No important position is occupied by rubber accelerants and epoxy resins, possibly because of the small number of cases of occupational contact dermatitis diagnosed.

Sensitization to neomycin sulfate has decreased (Table 2), perhaps as a result of substitution of this antibiotic by gentamycin and mupirocin in topical antibiotic treatments.

The absence of any positive cases of tixocortol pivalate is intriguing given that this antigen has been considered a marker of allergy to corticoids and its inclusion in the standard European battery has been recommended [7].

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