CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

PATCH TESTS IN BRAZIL

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In 1996 the Brazilian Study Group in Contact Dermatitis(GBEDC) was created. The group, composed by dermatologists, developed a standard series composed 30 substances. The majority of them were also similar those present in other international series.
The main sensitizers during 1996-2002 were similar to those obtained by the North American(NACDRG) and European Society(ESCD) of Contact Dermatitis: Nickel sulfate, Potassium Dichromate, Cobalt Chloride, Thimerosal, P-phenylenediamine, Fragrance-mixI.
At the beginning, the substances were applied in alphabetic order without the worry of cross reaction, chemical affinity or co-sensitization among them. In order to improve the technique of the patch tests, we performed some studies that showed the interference of the position of the substances on the patch tests results (false positive tests).
The standard series was decisive to improve the diagnosis of occupational and non-occupational allergic contact dermatitis. The cosmetics series, composed by 10 substances, was also added when necessary. Another study conducted from2006-2011, showed that the main sensitizers were the same obtained before.
In relation to age, the sensitizers among children and adolescents were similar to those among adults: Nickel sulfate, Tonsylamide formaldehyde resin, Thimerosal and P-phenylenediamine. Among elderly patients it is also important to highlight topical medicines.
The data obtained on a private office were similar to the results observed in an assistance service. The last frequency observed was 9%(2010-2016). We noticed an increase in the frequency of Allergic Contact dermatitis on the last years.
In order to improve our standard series, in 2013 we adopted the Latin American series composed of 40 substances, being 27 substances present on the old battery.
The study realized between 2014-2018 showed that, among the 31 substances with some relevant positive test, 11 were added to the new series, being four with sensitization index higher than 10%. Three of them (Tonsylamide resin, coco-aminopropyl-betaine and Germal 115) were part of cosmetics series. The substances that really contributed to accuracy were: Methylbromoglutaronytrile, tonsylamide formaldehyde resin, Cocoaminopropylbetaine and Fragrance-mix II.
In 2019 we are intending to update the Brazilian standard series again. This is the new series that we are working for, with the substances applied in position to avoid cross-reaction, chemical affinity and co-sensitization.
Amerchol L101
Fragrance-mix I 4
Lyral

Tiuram-mix7
Potassium Dichromate
Ethylenediamine
N-isopropyl-p-phenylenediamine
Sesquiterpene lactone- mix8
P-tertiary butylphenol
Formaldehyde
Neomycin
Nickel sulphate
Balsam of Peru
Fragrance-mix II 5
Mercapto-mix6
Clioquinol
Caina-mix 1
Methylisotazolinone
Quaternium-15
Thimerosal
Colophony
Hydroxy-ethyl methacrylate
Mercaptobenzothiazole
Tonsylamide formaldehyde resin
Disperse Blue 2
Lanolin
Diazolinidil ureia
Propylene glycol
Cobalt Chloride
Kathon CG
Epoxy resin
Thiourea-mix9
Coco aminopropyl betaine
Methyl brome glutaronitrile
Paraphenylenediamine
Parabens10
Carba-mix3
Germal 115
Prometazyn
Methoxy 6 pentyl benzoquinone

On conclusion: The patch tests in Brazil are realized in some services by Dermatologists and Allergists. Improvement of its the technique is an important factor to the accuracy of the patch tests results. Our main sensitizers are the same of those around the world.