

epicutaneous test



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The "Testing on hypoallergenic fabrics and garments" project run by the Dermatologic Department of the University of Modena and Reggio Emilia, involved a number of volunteer adults that attend the Allergology service for the analysis of suspect contact dermatitis. In the early stages of the research project, environmental and goods investigations were made, in order to collect details on the various steps of the fabric production cycle and on the materials employed in it. The technical sheets of those materials, when available, have been analyzed to collect information on the composition, classification, and on the toxicity, volatility, solubility, etc. of the fabrics. Moreover, the existing literature on contact dermatitis from fabrics has been reviewed, especially the parts on its epidemiological and allergological aspects.

This early assessment produced a list of 35 substances to be used in epicutaneous tests. The substances were supplied by the same companies that supply the fabric plants and were then diluted in the apt vehicle (Vaseline) in 0,5% or 1% concentration. The so-organized set of 35 allergens was used for the tests between January 2007 and February 2007. In that span of time, 200 patients were called, 127 females and 73 males, within the 18-41 age range. Those patients underwent accurate anamnesis analysis and in-depth dermatological examinations, before being skin tested. All the tests were performed with the patients' consensus. Overall, 5 (2,5%) patients out of the 200 tested showed a sensitivity to at least one of the substances from the fabric series 2). They were a 68-year-old man who presented dermatitis on trunk and limbs, and 4 women. Two of these, 34 and 35 years old respectively, with dermatitis on the trunk; one, 37 years old, with trunk-and-limb dermatitis; one, 45 years old, with dermatitis on upper limbs.

Four of these patients (1 male and 3 females) presented a case history of sensitivity to spread dyes; other three had a positive anamnesis for intolerance to garments. None of these patients worked in the textile field. Five substances out of the 35 testing ones proved positive to skin tests and could not be employed in making hypoallergenic garments. The remaining substances could be said hypoallergenic as they gave negative responses to epicutaneous tests. Nonetheless, the hypoallergenicity of fabrics would only be definitely stated after the wearing tests.

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