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**REVIEW OF EXPERIENCES FROM AZO TEXTILE DYES AND ALLERGY TESTING:
THE CHALLENGE OF TESTING MULTIPLE INDUSTRIAL DYES OF LOW PURITY
AND HIGH COMPLEXITY****Ana M Giménez-Arnau¹**¹*Department of Dermatology. Hospital del Mar. Universitat Autònoma; (Barcelona, Spain).*

Azo and anthraquinone dyes used to color fabrics are the most likely textile chemicals responsible of contact dermatitis. Both are the most common types of dyes used to tan mainly polyester and synthetic fibers. Azo dyes shows at least one azo group (-N=N-) as the chromophore. They may be derived from aminoazobenzene or from different heterocyclic structures. Based on its chemical properties belong to disperse, acid and reactive application class. Often textile dermatitis presents as eczematous dermatitis although, it can be misdiagnosed and the eruption becomes chronic, thickening and pigmenting the skin. Contact urticaria and pigmented purpura were also described. The accountability of a specific azo dye as responsible of contact dermatitis faces different problems e.g. mislabeling and purity. The allergenicity of dyes still requires studies to be fully validated. Until now is no compound or single mixture of compounds enough sensitive to be used as textile-dye allergy biomarker. The most widely used procedure for establishing textile dye contact allergy is to use of commercially available screening series or patch testing the own fabric. Para-phenylenediamine (PPD) and Disperse blue 106 were proposed as screening compounds to be included in the baseline series helping to detect azo-dye sensitization. Sousa –Basto with Azeña (1994) and Sertoli et al (1994) showed the usefulness of certain stable mixtures in the diagnosis of azo-dye contact dermatitis being well-tolerated and avoiding false-positive reactions. Actually, K Ryberg and M Bruze joint with the EECDRG studied the outcome of patch testing with a textile dye mix consisting of 8 disperse dyes at dermatology clinics in various countries. From 2907 consecutive patch tested patients a 1.6% showed a positive reaction to the textile dye mix, being simultaneous PPD positive reaction just in the 53% of these patients. Patients showing positive textile dye mix reacting to disperse Blue 106 and 124 seldom reacted with PPD. According with the results of this study, the inclusion of such textile dye mix in the baseline series will be recommended. The challenged diagnosis of azo-dye induced textile contact allergy will be reviewed through three clinical cases of severe contact eczematous dermatitis.