



CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

SIGNIFICANCE OF SCRATCH-PATCH TEST TO CONFIRM THE DIAGNOSIS OF ALLERGIC CONTACT DERMATITIS CAUSED BY NITROFURAZONE

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Introduction: Nitrofurazone broad-spectrum antibacterial activity is a topical antimicrobial agent. The use of nitrofurazone can cause severe and widespread allergic contact dermatitis (ACD).

Objective: Positive reactions may not always be achieved despite the use of allergens at appropriate concentrations in closed patch testing, which is extremely important in the assessment of ACD. The scratch-patch test impairs the epidermal barrier function ensuring better penetration into the skin of allergens. The application is accomplished by creating mechanical damage to the epidermis with a sterile skin prick lancet to impair the stratum corneum, which is the most important barrier limiting penetration. Test reactions are usually read at D2 and D3, but where possible D4 and D7 can also be evaluated. The evaluation of the scratch-patch test is the same as the conventional patch test. In this study, we evaluated Scratch patch test results with conventional patch test in the diagnosis of ACD caused by Nitrofurazone.

Materials and Methods: Forty patients were included in the study. Twenty patients with ACD caused by nitrofurazone and 20 age- and sex-matched patients with no Nitrofurazone sensitivity were included in the study. Scratch patch test was applied to both groups with conventional patch test. The topical nitrofurazone soluble dressing cream were applied.

Results: Forty patients were subjected to a closed patch test and a scratch patch test. In the group with nitrofurazone susceptibility closed patch test results were negative, while scratch patch test results were positive. Both the closed patch test and the scratch patch test results were negative in the group without nitrofurazone sensitivity.

Conclusions: In cases where conventional closed patch test results are negative, the





diagnosis can be confirmed by a scratch patch test to assess suspected allergic contact dermatitis due to topical nitrofurazone.

