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Why is the back so rarely involved in scabies?

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Dear Editor,

In 2017 we published an article in which we stated, contrary to popular belief, that subungual skin of fingers was very frequently involved in adult immunocompetent patients with scabies.¹ Subungual skin of fingers was in fact the 3rd location both in males and females. However, no burrows in subungual skin of fingers were observed: in 5/21 males and 2/15 females only rare and thin scales were observed. Furthermore, no itching in peri- and subungual skin of fingers was reported by patients. The conclusion of this study was that the fingernails should be trimmed very short, scrubbed with a brush and treated with the anti-scabies therapy. We also observed that this procedure can reduce the incidence of relapses.¹

In the same study, we observed that the back was involved in 2/51 males (3.9%: the 2nd last location) and 4/38 females (10.5%: the 3rd last location).¹ This observation confirmed what reported in the literature: the back is very rarely affected in scabies: only a few cases with back involvement were reported in children,^{2,3} pregnant⁴ and malnourished or immunocompromised patients.⁵⁻⁷

Why is the back so rarely involved in scabies? Is it an unfit environment for scabies mites? If so, why? It is difficult to state that the skin of the back is an unfit environment because it is similar, according to the histological point of view, to the skin of the chest, the anterior pillars of axillae, the abdomen, the hips and the buttocks: all these seats are frequently involved in scabies.¹ It is possible that in the skin of the back the nerve endings that convey the itching are less numerous and/or less developed: however,

despite of a careful review of the literature, we found no data to support this hypothesis. We wish to suggest a possible and simple hypothesis. Diffusion of scabies is by autoinoculation: the latter is caused by scratching: the latter is carried out by fingernails. It is rather difficult to reach and scratch the back! This, of course, cannot be considered as the only hypothesis, because some parts of the skin surface, such as the face and the feet, which are easily reachable by hands, in adults are rarely affected by scabies.

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