N-of-1 Trials: Not Just for Academics

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To the Editors:—It was with great interest that we read the study by Scuffham et al.[1] and the accompanying editorial by Larson[2] about the use of n-of-1 trials. Traditional medical training often emphasizes large, randomized, controlled trials as being perched on the highest tier in the hierarchy of research, but as the authors clearly state, these studies' findings may not be applicable to specific individuals. After reading these two articles, we came away both extremely impressed by their contents and this heretofore little known process, but extremely daunted by the prospect of employing it in most practitioners' daily practice, especially with Scuffham's definition of it being "multi-cycle within-patient, randomized, double-blind, cross-over comparisons of a drug and placebo (or another drug) using standardized measures of effect."

However, with additional reflection, we realize that busy general medicine clinicians geographically or psychologically far from academic centers have the opportunity to employ similar concepts, just as many dermatologists have been doing for years. This practical approach demonstrates particular utility in the setting of chronic inflammatory skin conditions, such as psoriasis or atopic dermatitis. For diffuse and often bilateral disease, one half of a patient's body can serve as the control for the other half. In this way, patients can determine the relative efficacy of certain topical agents and individualize the long-term approach to their condition. In the case of psoriasis, patients may use a single agent (topical corticosteroids, vitamin D analogues, retinoids or even coal tar) on one side with comparison to another single agent or even combination therapy on the other side. Similarly, patients with atopic dermatitis often experience a chronic course of their disease with periods of variable severity. This approach may be utilized to determine individual patient response to treatment with topical steroids (which vary by medication, strength and vehicle) and/or the non-steroidal topical immunomodulators. For these patients, the efficacy of topical therapy is determined by a combination of the efficacy intrinsic to the medications, their individual response to therapy, and even more important the patients' preference and subsequent adherence to regular application. These slightly inelegant, less than formal studies have proven invaluable in our own personal experience, and we encourage practitioners to consider this in some of their patients.

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