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Tazarotene

A Viewpoint by Marius Rademaker

Director of Dermatology, Health Waikato, Hamilton, New Zealand

Retinoids mediate a wide range of biological effects via a complex multiplicity of pathways. Oral retinoids are effective in the treatment of psoriasis but their use is limited by their systemic adverse effects and by concerns over their teratogenic potential. Until now, topical retinoids have not been effective in the treatment of psoriasis, although they have been used with success for many years in the treatment of acne vulgaris and, more recently, photodamaged skin.

It is now clear that there are a number of retinoid receptors and that each displays a variety of receptor dimerisation. The indiscriminate activation of all of these receptors by pharmacological doses of retinoids results in an unacceptable range of toxic effects. By achieving selective receptor stimulation only those pathways required for efficacy in a specific disease are activated. This appears to be the case with tazarotene.

When applied to psoriatic plaques, tazarotene targets keratinocytes by modulating differentiation and proliferation as well as decreasing the expression of inflammatory markers, thereby decreasing the influx of inflammatory immune cells into the skin.

Clinical trials clearly demonstrate that once-daily tazarotene gel improves plaque psoriasis (good, excellent or complete clearance) in 60 to 70% of patients. This response rate is in the same range as that for potent topical corticosteroids or calcipotriol. Adverse effects (pruritus, burning or erythema) limit treatment in approximately 10% of patients.

Tazarotene is a very important addition to the armamentarium of topical anti-psoriatic treatments. If tazarotene is also shown to be effective for photodamaged skin, it may become the treatment of choice for older patients with psoriasis. ▲

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