Tacalcitol
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Over the past decade vitamin D₃ analogues have been introduced for the management of psoriasis. Of the vitamin D₃ analogues currently available, calcipotriol (calcipotriene) is one of the most widely prescribed and was the only one approved for psoriasis in the United States prior to 1997. In terms of effectiveness alone, this class of agents does not constitute a major breakthrough in the treatment of the disease. They are not as effective as PUVA, methotrexate or cyclosporin, or as effective for short term therapy as high-potency topical steroids.

In terms of tolerability, however, vitamin D₃ analogues offer major advantages over other treatments. The cutaneous carcinogenicity of PUVA, hepatotoxicity of methotrexate and nephrotoxicity of cyclosporin are not seen with this class of agents. Unlike topical steroids, vitamin D₃ analogues do not cause cutaneous atrophy, telangiectasia or striae and there is some evidence that they may thicken the skin; moreover, they do not appear to be associated with tachyphylaxis during regular use. The only common adverse effect of tacalcitol is local cutaneous irritation, which can affect up to 20% of patients. Hypercalcaemia and hypercalciuria have been reported with overuse of calcipotriol and mild hypercalcaemia has occurred occasionally, even with doses in the therapeutic range. In contrast, tacalcitol has not been shown to raise serum calcium levels.

Published data suggest that tacalcitol is comparable to betamethasone valerate, while at least one study shows calcipotriol to be superior to the potent topical steroid fluocinonide. Direct comparisons between tacalcitol and calcipotriol will be necessary, but the introduction of vitamin D₃ analogues for the treatment of psoriasis has had a significant impact on our ability to treat psoriasis patients topically. These are the first of what is hoped will be an entirely new class of agents for treating disorders of keratinisation.