

CALCIPOTRIOL - A VITAMIN D3 ANALOGUE (MC 903) IN THE TREATMENT OF PSORIASIS VULGARIS: A REVIEW

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SUMMARY

Calcipotriol, a vitamin D3 analogue, is an effective and well tolerated topical therapy of mild and medium intensive plaque psoriasis. Calcipotriol reduces epidermal cell proliferation and enhances differentiation in lesional skin. Calcipotriol ointment, applied twice daily, may be more effective than betamethazone valerate and dithranol. In combination with other antipsoriatic treatments (UVB, PUVA, Cyclosporin), it is used in therapy of severe psoriasis. The most frequently occurring adverse events are lesional and perilesional skin irritations. There is no risk of hypercalcemia if calcipotriol is used in recommended doses not more than 100 g weekly. Calcipotriol ointment is today an effective and safe alternative therapy for psoriasis vulgaris in children. For the treatment of scalp psoriasis a calcipotriol solution can be used. In this article, the literature is reviewed and different calcipotriol therapeutic modalities are discussed.

KEY WORDS

vitamin D, calcipotriol, plaque psoriasis, review

Calcipotriol is a vitamin D3 analogue, which was used for the first time in dermatology in 1985 when a group of Japanese researchers found that in a patient with senile osteoporosis, associated psoriatic lesions disappeared unexpectedly during the treatment with oral active vitamin D3 (1, 2).

Some facts about vitamin D3 and skin are well known:

- cholecalciferol - vitamin D3 is synthesized in the epidermis under the effect of UVB light from 7-dehydrocholesterol
- hypocalcemia can cause exanthemas of psoriatic

type (as a result of deficiency of vitamin D in food, deficiency of UV light or hypoparatiroidism) (3, 4, 5, 6).

- specific receptors for calcipotriol have been found in skin (7).

The skin has an important role in metabolism of vitamin D3.

Under the effect of UVB light 7-dehydrocholesterol changes in the epidermis in cholecalciferol. The cholecalciferol produced in such way is carried to the liver for the 25-hydroxylation and 25 hydroxycalciferol is synthesized (25 OHD3). It is further

