A Trial of Oral 1α-Hydroxyvitamin D₃ for Ichthyosis

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Different mechanisms between the action of retinoids and that of vitamin D3 on psoriasis.

Sir,

Recent studies concerning the effects of the active form of vitamin D3 for psoriasis [1–3] are currently a dermatological topic. The true mechanism of the successful evidence, however, is unknown, though there are some reports which hypothesize the mode of action related to its control on growth and differentiation of keratinocytes [1–4]. The development of retinoid, a vitamin A derivative, produced an epochal advance in therapy not only for psoriasis but also for ichthyosis in recent years, and it might be interesting to examine the effects of the active form of vitamin D3 on ichthyosis, a representative of the keratinizing disorders other than psoriasis. We studied 7 cases with X-linked ichthyosis and 3 with ichthyosis vulgaris. The distinction between these diseases was determined by measuring steroid sulfatase activity of peripheral blood lymphocytes [5] and electrophoretic mobility of serum LDL [6]. All the patients were orally administered 1 µg per day of 1α-hydroxyvitamin D3, which is converted to hormonally active 1α,25-dihydroxyvitamin D3 in the liver [7]. During the study, no ointment was applied to the ichthyotic lesion. Throughout the observation period of 2 months, no remarkable tendency to skin improvement was achieved by oral 1α-hydroxyvitamin D3 therapy. These data suggest that there are

References