Vitamin D metabolism in psoriasis before and after phototherapy.

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Epidermis plays a major role in vitamin D synthesis and is a target tissue for 1,25 (OH)2 vitamin D, which could be involved in abnormal proliferation and differentiation of psoriatic keratinocytes. We investigated plasma calcium, phosphorus, alkaline phosphatases, parathyroid hormone, 25 (OH) D, 24,25 (OH)2 D and 1,25 (OH)2 D in 15 control subjects and 20 psoriatic patients before and after 3 weeks of phototherapy (UVB or PUVA). Before irradiation, all parameters were similar in psoriatics and controls, except for serum phosphorus (lower in psoriasis p less than 0.01). After phototherapy, P rose to normal values in psoriatic patients; 25 (OH) D and 24,25 (OH)2 D were dramatically increased by UVB (but not by PUVA) in psoriatic patients as well as in controls; 1,25 (OH)2 D was unmodified in controls but was significantly increased in psoriasis. Since 1,25 (OH)2 D has been reported to be an effective treatment for psoriasis, the UV-induced increase in 1,25 (OH)2 D could account for the beneficial effect of phototherapy in psoriasis.

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