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Technology - Treatment of Psoriasis

The treatment that has been developed for psoriasis is based on an improved understanding of the pathogenesis of psoriasis and of regulation of cellular differentiation. Contrary to the earlier teachings, it has been shown that a specific inhibitor of Hedgehog/Smoothed signaling administered in a dose beyond that sufficing to inhibit proliferation of the epidermal cells in psoriatic lesional skin induces their differentiation and causes disappearance of the CD4+ CD8+ lymphocytes and other inflammatory cells from lesions to result in rapid clearance of lesions. Complete disappearance of lesions is observed with most patients by day four of treatment although this duration may vary with the severity of lesions. In patients who discontinued medication for social reasons (e.g. to attend a business elsewhere) before complete disappearance of lesions, relaps or re-progression of the initially regressing lesions has been observed depending on the duration of medicament administration at the time of discontinuation. It is therefore recommended to continue the treatment until achievement of full clearance. As seen with the examples below, about four days of treatment has been found to produce clearance of lesions of most patients, even those unresponsive to other treatments.

Effects On Disease Refractory To Conventional Treatments



Severe plaque form psoriasis refractory to conventional treatments in a 38 year old man.



Same patient as in the preceding slide on day 4 of treatment. A cream preparation was applied topically on the dorsum of left hand essentially as described previously (see e.g. EP1496895). Right hand was left untreated. Remnants of the cream scraped for photography are seen on the left hand. Border of the direct topical application of cream on the dorsum of hand was the metacarpophalangeal joints.



The plaque form psoriasis in this 67 year old man was resistant to the previously tried conventional treatments.



Hand of the patient shown in the preceding slide after 4 days of topical application of cream to the dorsum of hand. On right, the patient is showing that he can now readily make fist which was difficult and painful for him before the treatment. Border of application of cream is indicated by the blue line on fingers.



Palmoplantar psoriasis in a 37 year old woman. The disease was found to be refractory to the various forms of approved treatments tried on her.



Palm of the same patient as in the preceding slide after 4 days of topical application of medicament to the diseased skin. Treatment was discontinued at the end of day 4 since she had to return to work in another city.



Palm of the same patient as in the preceding two slides
9 days after topical treatment for 4 days.



Thumb of the 37 year old woman as in the preceding slides showing psoriatic nail disease prior to the initiation of present treatment.



Thumb of the patient shown in the preceding slide on day 4 of the topical application of medicament to the nail root and to the inflamed skin of thumb.



The same thumb as in the preceding slide 5 ½ weeks after 4 days of topical treatment. Notice growth of healthy nail.