Ultraviolet-B phototherapy is successful in Japanese patients with early-stage mycosis fungoides.

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UVB phototherapy is widely used for the treatment of psoriasis and atopic dermatitis, however, only limited reports evaluate its usefulness in the treatment of mycosis fungoides. We introduced UVB phototherapy to five patients with early-stage mycosis fungoides. All of them were classified as stage IB (erythematous stage), and none had obtained a satisfactory response to other therapies. After initial treatment with UVB phototherapy, all the patients obtained significant improvement in their skin lesions leaving pigmentary changes. After this satisfactory response was achieved, the same dose of UVB was administrated as a maintenance therapy with longer intervals between exposures. Histopathological examination of three patients revealed decreased numbers of inflammatory cells in both the epidermis and the dermis after the treatment. Immunohistochemical study showed that CD1a+/HLA-DR+ dendritic cells were present throughout the lesional epidermis before the treatment. In contrast, after the treatment, the dendritic cells in the epidermis were CD1a+/HLA-DR-. Although it remains unclear why only the expression of HLA-DR antigen was eliminated after treatment, we presume that this loss of HLA-DR antigen expression by epidermal Langerhans cells was, in part, responsible for the improvement of skin lesions. This preliminary study suggests that UVB phototherapy is an effective treatment for patients with early-stage mycosis fungoides.

Publication Types:
- Clinical Trial

PMID: 14684935 [PubMed - indexed for MEDLINE]