

REVIEW ARTICLE

Daylight photodynamic therapy with MAL cream for large-scale photodamaged skin based on the concept of 'actinic field damage': recommendations of an international expert group

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Abstract

Conventional PDT (c-PDT) is a widely used and approved non-invasive treatment for actinic keratosis (AK). Recent clinical, histological and immunohistochemical observations have shown that c-PDT with methyl aminolevulinic acid (MAL) may also partially reverse the signs of photodamage. However, pain and the need for special light source equipment are limiting factors for its use, especially in the treatment of large areas. More recently, daylight PDT (DL-PDT) has been shown to be similar to c-PDT in the treatment of AK, nearly painless and more convenient to perform. To establish consensus on recommendations for the use of MAL DL-PDT in patients with large-scale photodamaged skin, the expert group was comprised of eight dermatologists. Consensus was developed based on the personal experience of the experts in c-PDT and DL-PDT, and results of an extensive literature review. MAL DL-PDT for large areas of photodamaged skin was evaluated and recommendations based on broad clinical experience were provided. As supported by evidence-based data from multicentre studies conducted in Australia and Europe, the authors defined the concept of 'actinic field damage' which refers to photodamage associated with actinic epidermal dysplasia, and provide comprehensive guidelines for the optimal use of DL-PDT in the treatment of actinic field damage. The authors concluded that MAL DL-PDT has a similar efficacy to c-PDT at 3-month (lesion complete response rate of 89% vs. 93% in the Australian study and 70% vs. 74% in the European study (95% C.I. = [-6.8;-0.3] and [-9.5;2.4] respectively) and 6-month follow-ups (97% maintenance of complete lesion response) in the treatment of AKs. The authors agree that DL-PDT is not only efficacious but also nearly pain-free and easy to perform, and therefore results in high patient acceptance especially for the treatment of areas of actinic field damage.

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Conflicts of interest

Dr. WG Philipp-Dormston (Germany) is a member of the scientific advisory boards of Allergan, Biofrontera, Galderma and Leo Pharma, holds lectures and conducts clinical studies for these companies. Dr. G Sanclemente (Colombia) has received speakers' honoraria and financial support for attending meetings from Galderma, and conducts clinical studies with products from this pharmaceutical lab. Dr. L Torezan (Brazil) is a member of an international advisory board of Leo Pharma and consultant for Galderma. Dr. MT Clementoni (Italy) is a member of the scientific advisory boards of Lumenis Ltd, Lutronic Ltd, Quanta System and Galderma and holds lectures, conducts clinical studies and did clinical trainings for these companies. Dr. A Le Pillouer Prost (France) is a member of the scientific advisory boards of DEKA, Genèvrier, Galderma and Merz, has received honoraria as consultant and has participated from these firms in clinical studies. Dr. H Cartier (France) is a member of the scientific advisory board of Galderma, receives honoraria for lectures and has participated as trial investigator in numerous licensing studies. Prof. RM Szeimies (Germany) is a member of the scientific advisory boards of Biofrontera, Galderma and Leo Pharma, receives honoraria from these firms for lectures and has participated as