



PHOTOTHERAPY, PHOTODYNAMIC THERAPY

DAYLIGHT VERSUS CONVENTIONAL PHOTODYNAMIC THERAPY FOR ACTINIC KERATOSIS: A RANDOMIZED AND PROSPECTIVE STUDY IN CHINA

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Background: Conventional photodynamic therapy (C-PDT) is an effective treatment for actinic keratoses (AKs) in Asia, with some unmet needs. Severe PDT-associated pain results in low treatment willingness. Daylight photodynamic therapy (DL-PDT) is a simple and tolerable treatment that has the same efficacy as C-PDT in Europe. However, few studies have been conducted with Asian patients.

Objective: To evaluate the efficacy and safety of DL-PDT vs. C-PDT for treating AK patients in China.

Methods: This randomized and prospective study was conducted in Shanghai, China. Sixty patients with AKs (grades I-III) were randomized into two groups (DL-PDT and C-PDT). PDT was performed once every two weeks for three times. Patients were evaluated before each treatment (baseline and two weeks after the first and second treatment) and at one month after the third treatment. Endpoints included efficacy and safety.

Results: A total of 55 patients completed the study. At the first month after 3 sessions of PDT, the overall lesion clearance rate of DL-PDT (95.5%) was similar to that of C-PDT (96.8%). However, in some particular parts (eyebrow and sideburns), C-PDT resulted in higher rates of cured lesions than DL-PDT. Additionally, patients undergoing DL-PDT had nearly no pain, showing significantly lower pain scores than those undergoing C-PDT (1.7 ± 0.9 for DL-PDT vs. 5.2 ± 1.7 for C-PDT). Moreover, fewer subjects undergoing DL-PDT had related adverse events than those undergoing C-PDT (36.7% vs. 63.3%).

Conclusion: DL-PDT was effective, better tolerated and nearly painless compared with C-PDT in AK patients in China.

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