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PHOTOTHERAPY, PHOTODYNAMIC THERAPY

## EFFECT OF PHOTODYNAMIC THERAPY COMBINED WITH PLUM-BLOSSOM NEEDLING ON BASAL CELL CARCINOMA

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Background: Basal cell carcinoma (BCC) often occurs in the faces. Given this particular location, aminolevulinic acid-photodynamic therapy (ALA-PDT) is often applied. Specific measures in PDT treatment should be incorporated to increase ALA penetration capability because of the limited depth of ALA penetration. This research aims to explore a method that facilitates ALA penetration.

Observation: Three patients with BCC were subjected to four regular sessions of ALA-PDT every other week. Prior to the PDT treatment, super pulsed CO2 laser was used to burn a part of the lesions, and plum-blossom needle was subsequently tapped at the lesions for three times. Freshly prepared 20% 5-ALA was coated onto the lesions and kept for 3 h. The lesion was irradiated with red light with 126 J/cm2 at a wavelength of 633 nm and a rate of 100 mW/cm2 for 30 min.

Key message: After each session of ALA-PDT, the thickness of BCC gradually decreased. After the final session of ALA-PDT, the plaque became a red, painless patch. The lesions were repaired completely, and a brown patch was left. Plum-blossom needle can be effectively applied as adjunctive treatment in ALA-PDT for BCC treatment.

Keywords: Basal cell carcinoma; Plum-blossom needle; Photodynamic therapy



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