

Vitiligo

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Helium-neon laser irradiation stimulates migration and proliferation in melanocytes and induces repigmentation in segmental-type vitiligo.

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This study sought to determine the theoretical basis and clinical evidence for the effectiveness of helium-neon lasers in treating vitiligo. Cultured keratinocytes and fibroblasts were irradiated with 0.5-1.5 J per cm² helium-neon laser radiation. The effects of the helium-neon laser on melanocyte growth and proliferation were investigated. The results of this in vitro study revealed a significant increase in basic fibroblast growth factor release from both keratinocytes and fibroblasts and a significant increase in nerve growth factor release from keratinocytes. Medium from helium-neon laser irradiated keratinocytes stimulated (3H)thymidine uptake and proliferation of cultured melanocytes. Furthermore, melanocyte migration was enhanced either directly by helium-neon laser irradiation or indirectly by the medium derived from helium-neon laser treated keratinocytes. Thirty patients with segmental-type vitiligo on the head and/or neck were enrolled in this study. Helium-neon laser light was administered locally at 3.0 J per cm² with point stimulation once or twice weekly. The percentage of repigmented area was used for clinical evaluation of effectiveness. After an average of 16 treatment sessions, initial repigmentation was noticed. Marked repigmentation (>50%) was observed in 60% of patients with successive treatments.

EFFICACY of LOW POWER LASER GaAlAs (630 nm) in THE TREATMENT of VITILIGO PATIENTS

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Vitiligo patches were treated by using a 630-nm GaAlAs laser (20 mW & 1 J/cm²), twice a week for a maximum of 24 treatments. Patients were followed for 9 months and the effect of treatment was evaluated. Six patients could be evaluated for the purposes of this analysis. Their ages ranged from 11 to 46 years. Decreases in surface area of depigmented lesions were seen ranging between 25% and 75%. Pigmented stippling within depigmented lesions occurred in all patients. In two patients of repigmented of previously depigmented hair were seen. Only one patients experienced arrest of progression of disease after 24 sessions of treatment. LPLT is without side effects and probably effective in repigmentation of vitiligo but has minimal effect of progression of disease.