

LASERS

STUDY OF SAFETY AND EFFICACY OF LONG PULSED ND:YAG LASER FOR THE TREATMENT OF KELOIDS

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Introduction: Effective keloid management is still difficult despite many modalities being tried for the same. Lasers like PDL and Nd:YAG have been tried due to their ability to cause capillary destruction and collagenase induction.

Objective: To assess the efficacy and safety of long pulsed Nd:YAG laser in the treatment of keloids.

Methodology: Thirty nine keloids in 19 patients were treated with the long-pulsed (1064 nm) Nd:YAG laser for 3 sessions at a three weekly interval. At each visit, treatment effectiveness was measured by the Vancouver scar score (VSS) on the basis of vascularity, pigmentation, pliability, height. Therapeutic effectiveness criteria (TEC) and patient satisfaction score (PSS) was also recorded. The study was further divided on the basis of duration of keloids into two subgroups: less than 6 months duration and other group of more than 6 months duration. Data was statistically analysed with One-way ANNOVA test.

Results: Total improvement in VSS was 29.6%. On TEC, 21 keloids showed excellent improvement. Keloids of less than 6 months showed statistically significant improvement in terms of vascularity, pliability, height and total score. ($P < 0.003$) while keloids of more than 6 months duration showed improvement in terms of vascularity, pliability and total score ($P < 0.0001$). In comparison, the % improvement was more in keloids <6 months duration (17.5% in vascularity and 33% in height, 10.3% in total score). Transient side-effects were post-procedure pain in three and hypopigmentation in one patient.

Conclusion: Long pulsed Nd: YAG laser is effective and safe in treating keloids and serves as a new emerging tool for the treatment of keloid. Treating keloids early is of importance for achieving better results.