

Fractional CO₂, Long Pulse Nd:YAG And Pulsed Dye Laser In

The Management Of Keloids

Introduction:

Keloids are abnormal wound responses characterised by excessive deposition of collagen and glycoprotein. They are both aesthetically and symptomatically distressing for most of the patients. LASERs have become a well-known treatment modality for the management of keloids in recent years. There are reports of keloid management with pulsed dye LASER, fractional CO₂ LASER and Nd:YAG LASER individually and also in combination of CO₂ with PDL and CO₂ with Nd:YAG. Here, we discuss a combination of all the 3 LASERs as therapy for keloids.

Aim:

To assess the efficacy of fractional CO₂, long pulse Nd:YAG and pulsed dye LASER in the management of keloids.

Methods:

Procedure:

Patients were anaesthetised using topical combination of lidocaine and prilocaine. After half an hour, fractional CO₂ was delivered. Five minutes after the delivery of fractional CO₂, Cynergy multiplex (long pulse Nd:YAG and pulsed dye LASER) was delivered. This procedure was done at intervals of 4 weeks. Clinical improvement was monitored based on a VAS (visual analogue scale) graded by 3 blinded observers after assessing clinical photographs. The parameters analysed in the VAS were the colour, size and general impression. A score of 0 for 'no improvement', 1 for 'mild improvement' (<25%), 2 for 'moderate improvement' (26%-50%), 3 for 'good improvement' (51%-75%) and 4 for 'excellent improvement' (76%-100%) was given. The mean of the scores given by the 3 observers for each patient was recorded and the results were interpreted accordingly.

Results:

Out of the 11 patients, 1 patient had excellent improvement, 1 patient had good improvement, 4 patients had moderate improvement, 2 patients had mild improvement and 3 had no improvement.

Conclusion:

LASERS used either singly or in combination may be effective to a varying degree in the treatment of keloids. We plan to conduct studies combining all

other modes of treatments along with LASERs to determine if better results can be achieved.

KEYWORDS:

LASERS, Keloids, PULSED DYE LASER, FRACTIONAL CO₂ LASER,

Nd:YAG LASER