ABSTRACT BOOK ABSTRACTS



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LASERS

## A COMPARATIVE STUDY BETWEEN FRACTIONAL ERBIUM LASER (2940 NM) AND FRACTIONAL ERBIUM LASER FOLLOWED BY APPLICATION OF 10% TCA FOR THE TREATMENT OF MELASMA.

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Introduction: Melasma is a common disorder of hyperpigmentation may be seen up to 30% in middle aged Asian females. Melasma is often difficult to manage because of its refractory recurrent nature. Fractional Erbium (2940 nm) gives promising result on Asian skin due to limited adverse effect specially post inflammatory hyperpigmentation on dark skinned patients. Fractional Erbium laser followed by application of 10% TCA is used to create an injury of a specific skin depth, stimulating new skin growth and improving surface texture as well as pigmentation.

Objective: To compare and to assess the efficacy and safety of fractional Erbium laser and fractional Erbium followed by 10% TCA peeling.

Materials and methods: This observational study was conducted in Skin & Laser unit of Bangladesh Specialized Hospital from the period of January, 2017 to April, 2018. Total 60 female patients of melasma were included and divided into two equal groups. In group A 30 patients were subjected to 10 sessions of fractional Erbium at 3 weeks interval. In group B 30 patients were exposed to fractional Erbium followed by 10% TCA at same interval. Laser (power: 1.4 Jul/cm2, pulse duration: 1.5 ms, frequency: 3Hz) was the same for all patients. Patients were followed-up up to one year and evaluated statistically for therapeutic response (using Melasma Area Severity Index- MASI), side effects, recurrence and pigmentary changes.

Results: After one year of treatment, percentage reduction in MASI score was seen in group A was 62.2% and in group B was 78.2%.

Conclusions: Finding of this study leads to recommendation that fractional Erbium laser therapy followed by 10% TCA application is more efficacious than fractional Erbium therapy alone.





