



LASERS

## EVALUATION OF EFFICACY AND SAFETY PROFILE OF INTENSE PULSED LIGHT TREATMENT IN MELASMA IN DARKER SKIN TYPE

*Nishant Choudhary<sup>(1)</sup> - Abhishek De<sup>(1)</sup> - Amrita Sil<sup>(2)</sup>*

*I.p.g.m.e&r, Department Of Dermatology, Kolkata, India<sup>(1)</sup> - I.p.g.m.e&r, Department Of Pharmacology, Kolkata, India<sup>(2)</sup>*

**Introduction:** Treatment of melasma has always been a challenge, often resulting in non response, adverse events and temporary or partial remission. Recently, there are studies suggesting Intense Pulse Light (IPL) as an effective therapeutic modality for melasma. However, similar studies in darker skin type (IV and V) are grossly lacking.

**Objective:** We undertook a prospective, interventional study to evaluate the efficacy and safety profile of IPL in melasma, particularly aimed at dark skin phenotypes, as the primary objective and as a secondary aim we wanted to investigate if an association between melasma and thyroid abnormalities existed or not.

**Materials and Methods:** Study was conducted in 32 patients of skin type IV and V after their consent. Filters 640nm and 690nm, were used in IPL machine. Patients were called once a month for 6 sessions. Melasma area and severity index (MASI) and Clinician Global Impression Scores were used for evaluation. We followed "per protocol" analysis. Patients were also evaluated for thyroid disorders.

**Results:** Of the 26 patients who completed the treatment, 12 patients showed improvement in MASI, in 10 patients MASI remained unchanged and 4 patients showed deterioration. MASI scores before and after treatment were  $6.70 \pm 3.53$  and  $6.32 \pm 3.90$  (p value = 0.6891). Erythema and pain were the common side effects noted. Seventeen out of 32 patients had thyroid disorder. When correlated for MASI value with presence of thyroid disorders, there was a mild correlation seen in Spearman's rho (0.119).

**Conclusion:** We suggest IPL should be avoided as a first line therapy in darker skin type. However it can be used as an adjuvant in some cases after careful deliberations. We also found that there was association of melasma with hypothyroidism and many of these patients may be unmasked only when investigated for the same.

