



PIGMENTATION

A RANDOMIZED, PLACEBO-CONTROLLED, MULTICENTER STUDY OF EFFICACY AND SAFETY OF ORAL COLORLESS CAROTENOID FOR THE TREATMENT OF MELASMA AMONG INDONESIAN WOMEN

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Background: Melasma is a common skin pigment disorder with a difficult clinical response to treatment. Despite many known risk factors as cumulative sun exposure, oral contraceptive pills, pregnancy, stress, cosmetics, and some drugs, the physiopathology of melasma is not yet fully understood, which limits the development of definitive treatments and prevention strategies.

Objectives: The aim of this study was to evaluate the efficacy and safety of oral daily supplement containing colorless carotenoid for treatment of melasma among Indonesia women.

Material & Methods: This was a randomized, single-blind, placebo-controlled clinical trial performed in 50 female subjects with mild to moderate melasma in five dermatology outpatient public service hospital/ clinic in several regions of Indonesia (Jakarta, Bandar Lampung, Central Kalimantan, and West Java). They were randomly divided into two groups and were treated with once daily oral supplements containing colorless carotenoid (n=25) or placebo (n=25). They were followed every 30 days for a period of 90 days. Response to treatment was evaluated by the mMASI score and photographic documentations. Patients self assessment were also collected.

Results: 47 subjects complete the study, and at the end of this study, the mMASI score was





significantly decrease in those who received oral supplement compared with placebo ($p < 0,5$). Subjects in the supplement group also had better scores for patient self-assessments than those in the placebo group. Four out of 50 subjects experienced side effect as mild acne.

Conclusions: Once daily oral supplements containing colorless carotenoid are potential adjuvant treatment for melasma. Further studies with larger scale and longer observations are required to complete this study.

