



MEDICAL THERAPIES AND PHARMACOLOGY

MELASMA: A SYSTEMATIC REVIEW OF THE SYSTEMIC TREATMENTS

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Introduction: Melasma is a common disorder of pigmentation. Currently available treatment options for melasma include prevention of UV radiation, topical lightening agents, chemical peels, light-based and laser therapies. However, none have shown effective and sustained results, with incomplete clearance and frequent recurrences. There has been increasing interest recently in oral medications and dietary supplements in improving melasma.

Objective: We sought to evaluate the efficacy, safety and tolerability of oral medications and dietary supplements for the treatment of melasma.

Materials and Methods: Multiple databases were systematically searched for randomized clinical trials (RCTs) evaluating the use of systemic medications for the treatment of melasma alone or in combination with other treatments. Eligible studies reported at least one of the melasma outcome measures such as the Melasma Area and Severity Index (MASI), the modified Melasma Area and Severity Index (mMASI), or the melanin index.

Results: A total of 8 RCTs that met inclusion criteria have evaluated the following systemic agents: tranexamic acid, polypodium leucotomas extract, beta-carotenoid, melatonin and procyanidin. Tranexamic acid has demonstrated the greatest reduction in average MASI scores, with efficacy maintained at the 6-month mark in some studies. While polypodium leucotomas extract may be beneficial, its effectiveness has not been shown to be statistically significant. Beta-carotenoids, melatonin, and procyanidin appeared to have a modestly beneficial effect. Each of these agents were relatively to very well-tolerated.

Conclusions: In summary, a few of the systemic agents studied may improve melasma and enhance the efficacy of topical anti-melasma treatments. As the majority of these oral compounds have been shown to be efficacious, safe, and well-tolerated, dermatologists may consider them in their armamentarium for the treatment of melasma.

