

Abstract

Melasma is a common hypermelanotic disorder affecting the facial area which has a considerable psychological impact on the patient. Managing melasma is a difficult challenge that requires long-term treatment with a number of topical agents, such as rucinol and sophora-alpha. Aims. We aim to compare the combined treatment of skin needling and depigmenting serum with that using depigmenting serum alone in the treatment of melasma, in order to evaluate the use of microneedles as a means to enhance the drug's transdermal penetration. Methods. Twenty patients were treated with combined skin needling and depigmenting serum on one side of the face and with depigmenting serum alone on the other side. The outcome was evaluated periodically for up to two months using the Melasma Area Severity Index score and the Spectrocolorimeter X-Rite 968. Results. The side with combined treatment (skin needling + depigmenting serum) presented a statistically significant reduction in MASI score and luminosity index (L) levels compared to the side treated with depigmenting serum alone, and clinical symptoms were significantly improved. Conclusions. Our study suggests the potential use of combining skin needling with rucinol and sophora-alpha compounds to achieve better results in melasma treatment compared to rucinol and sophora-alpha alone.