EFFICACY AND SAFETY OF LASER AND LIGHT TREATMENTS FOR REFRACTORY/RESISTANT MELASMA

AYE SU MON KYWE

1001129013

MASTER OF SCIENCE (ANTI-AGING, REGENERATIVE MEDICINE AND MEDICAL AESTHETIC)

FACULTY OF MEDICINE AND HEALTH SCIENCES

UCSI UNIVERSITY

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ABSTRACT

With the increasing interest and concern on healthy skin and beauty, more patients seek for doctors' consultation and treatment on aesthetic cases. Melasma, although not included in the most common patient complaints in aesthetic clinics, is a challenging problem which is difficult to treat. There are currently many options to treat melasma with varying results. Although topical regimen has pigment clearing effects, there is still a chance of recurrence producing the challenge of the resulting refractory melasma and resistant melasma. This study was aimed to review the evidence of the effects of the laser and light procedures in treating the refractory or resistant melasma and to determine whether the procedures are safe to be used in patients with refractory or resistant melasma. This study was a structured review of 7 articles which met the inclusion and exclusion criteria during literature search on databases. Of 7 articles, 5 articles were considered to have high quality while 2 were considered to have poor quality according to quality assessment scores. The findings suggested that 1). pre-treatment data and post-treatment data are significantly different in subjects who previously had poor response to conventional therapies, 2). laser and light treatments have positive effects in reduction of pigmentation in patients with refractory melasma. 3). in general, the treatments are found to be safe with minor and transient complications. It can be concluded from the results of the reviewed studies that there are positive effects of the use of lasers and light therapies on treatment of refractory melasma with poor response to conventional treatments. The procedures are considered safe for the patients except for minor and transient complications. Different types of lasers and light therapies used to treat refractory melasma and their setting parameters are summarized in this study together with the effects and complications. This structured review can provide the doctors a summary of clinical evidence to manage refractory melasma.