

THE EFFICACY OF LASERS AND PHOTODYNAMIC
THERAPY FOR THE TREATMENT OF ACNE VULGARIS
A REVIEW OF PUBLISHED ARTICLES

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ABSTRACT

Acne vulgaris is one of the commonest skin lesions in population. Treatment of acne vulgaris still remains as a major challenge to medical practitioner. This is mainly due to expectation from patient, compliance of patient on treatment and follows up and the side effects from current medical treatment. Lasers and photodynamic therapy has become alternatives treatment for treating all grades of acne vulgaris with various severities. This Study was done based on data sources from structured reviews on case studies were identified through search from Pub Med, Cochrane library and web articles on efficacy of lasers and light therapy in treating patient with acne vulgaris. All the selected studies on this topic were identified and reviews were systematically extracted and compiled, which were the analyzed for review and thesis write up. A variety of light and laser devices have been used for the treatment of acne, including the potassium titanyl phosphate laser, the 585- and 595-nm pulsed dye lasers, the 1450-nm diode laser, radiofrequency devices, intense pulsed light sources, and photodynamic therapy using 5-aminolevulinic acid and indocyanine green. These devices mainly target the underlying pathogenic factors such as propionibacterium acnes colonization, increased sebaceous gland activity, and the cutaneous inflammatory response. Most of the results from these studies showed there is significant improvement in acne vulgaris after the treatment with lasers and photodynamic therapy. Adverse effects were limited to transient erythema and oedema. Lasers and photodynamic therapy emerged as an adjunctive treatment for acne vulgaris. With advancement of research and studies done on lasers and photodynamic therapy in the treatment of acne vulgaris, the future of acne vulgaris treatment protocols would change indefinitely.