The use of LED in inflammatory acne: case studies.

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Abstract

Statement of the Problem: Inflammatory acne is a common chronic disease that affects 80% to 90% of adolescents worldwide and 50% of adults, particularly women. This disease is so important to public health, because is the eighth type of disease in prevalence in the world, reaching around (650 million people). And Inflammatory acne is the second cause of the search for dermatological medical offices in many countries in the world. It has been estimated that upwards of 30% of all dermatologic visits in the United States are to treat acne vulgaris. The consequences of acne is a post-inflammatory hyperpigmentation and scars and personal appearance is compromised due to inflammatory lesions. Acne causes an unpleasant appearance depending on its degree of impairment, leading affected patients to have psychological problems, such as stress, fear, withdrawal from social life, and suicide. Stress situations tend to worsen the skin condition of patients and can lead to obsessive-compulsive disorders and psychoses that focus the patient's attention on excoriating (scratching, plucking) acne lesions causing what we call excoriated acne. Lasers and LEDs are used in the treatment of acne and its scars. High power lasers are ablative and help improve the appearance of scars and low power or intensity lasers and LEDs are alternatives to improve inflammation and skin quality. Methodology & Theoretical Orientation: We did some case studies with patients with inflammatory acne using LEDs as a treatment. The study was carried out for 30 days, applying an LED mask for 12 sessions, 3 times a week. Conclusions & Significance: LED phototherapy is safe and effective for wound healing including acne vulgaris. Health professionals, especially nurses, must know these new technologies, as they are adjuvant therapies for acne treatments and also in wounds, and skin disorders.

Image



Figure 1. A) Acne - Grade I B) Acne - Grade II - C) Acne Grade III D) Pós inflamatory Hyperpigmentation E) Acne scars - (source : personal file).

Recent Publications

1- Effect of Blue Light on Acne Vulgaris: A Systematic Review. Sensors (Basel) 2021 Oct 19;21(20):6943. doi: 10.3390/s21206943. https://pubmed.ncbi.nlm.nih.gov/34696155/

Photograph



Biography

'Dra Mara Diogo is a professor of graduate nursing courses in dermatology, works with lasers and LEDs in the treatment of wounds, acne, rosacea and dermatological diseases such as psoriasis, atopic dermatitis. She has served as a researcher and scientist, helping to develop parameters for applications of LED devices in inflammatory acne. Her passion is research and science, especially in the field of phototherapy.

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