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Treatment of acne vulgaris with blue light: A systematic review

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Acne is a dermatosis that affects almost 90% of the population of youth worldwide and its treatment is performed with retinoids, antimicrobials, acids, and topical or systemic antibiotics. Side effects such as skin irritation in addition to microbial resistance to antibiotics are the main side effects found. Phototherapy with blue light is being used as an alternative treatment. Our objective was to analyze the use of blue light to treat inflammatory acne. We conducted a systematic literature review, following the recommendation PRISMA (Preferred Reporting Items for Systematic Reviews and MetaAnalyses), including in the sample randomized clinical trial studies that compared blue light with another intervention as control. The research was carried out in the PUBMED and WEB of SCIENCE databases and the methodological quality of the studies evaluated were made by the Cochrane Collaboration Bias Risk Scale. After the exclusion of duplicates, the titles and abstracts of 81 articles were evaluated, and 50 articles were selected for full reading, including in the review at the end 8 articles. Studies

have shown significant improvements in the overall picture of acne. It is concluded that despite the great potential in its use in the treatment of acne, there is a need for more detailed trials on the effect of blue light on the treatment of inflammatory acne.

Keywords: Acne, photobiomodulation, LLLT (Low-Level Light Therapy), Phototherapy, LED (Light Emitting Diode), blue light.

Speaker Biography

Mara Lúcia Gonçalves Diogo, doctoral student and master in biophotonics applied to health sciences at the Nove de Julho University, São Paulo, working in research on acne treatments with light. She is a specialist in dermatology by the Brazilian Association of Nursing in Dermatology (SOBENDE), 2007; Nurse at the Wenceslau Braz School of Nursing in ItajubáMG, in 1986. She has worked as a liberal professional in a dermatological medical office for 25 years and is a professor of postgraduate courses in nursing in dermatology and nursing in aesthetics in Brazil.

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