

4th Annual Meeting on
Cosmetic Dentistry & Orofacial Myology,
&

7th Annual Meeting on
Pedodontics and Geriatric Dentistry

June 10th, 2022 | Joint Webinar

Bone regeneration with photo bio modulation

Background:

Epidermolysis bullosa (EB) is a heterogeneous group of hereditary mechanobullous diseases which is characterized by varying degrees of skin and **mucosa fragility**. Chronic wounds are considered a major source of **morbidity** and mortality in severe cases. In this clinical trial for the first time, the safety and efficacy of photo bio modulation in the treatment of EB was assessed.

Methods:

Infra-red 904 nm laser and **placebo laser** were randomized on pair wounds, 1.8 J/cm² for 4 weeks was used every other day and then were changed to 3.6 J/ cm² twice a week for 4 weeks. In the open label phase, all wounds were treated using the Infra-red laser 3.6 J/ cm² for the margins and red laser, 1.8 J/ cm² for bed of the ulcers for 8 weeks. Follow up was up to 8 weeks.

Results:

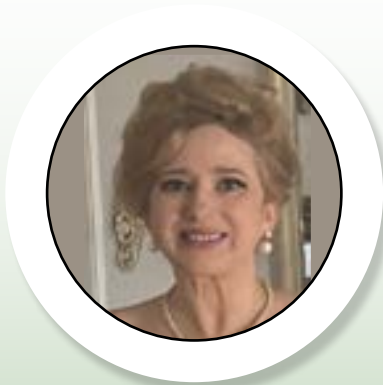
PBM reduced the wound size compared to the sham group during the blinded phase (P<0.001). PBM was also effective in decreasing pain (P<0.001) and pruritus (P=0.005). Quality of life also improved in terms of **psychosocial life** and functional aspects. EBDASI also decreased from 28 to 17 for activity and from 92 to 76 for damage.

Conclusion: Using PBM improved wound healing, pain, itch, quality of life and disease activity score in EB ulcers significantly.

Key words: Photo bio modulation, low-level laser therapy, wound healing, Epidermolysis bullosa.

Biography:

Her most recent degree is in Education. It comes from the University of New York, from the Academy of Distinguished Educators, in Excellence in Clinical Teaching. Her Ph.D. is earned in **Periodontology**, preceded by a Master of Science Degree awarded in Biophysics and Bio-Cellular Technology. She served on the Board of Editors of the International Phototherapy Association in Japan, and she is a Fellow of the Royal Society of Medicine. As a Clinical Assistant Professor to the Cariology and Comprehensive Care Department of the NYU. she has conducted clinical research trials, converting theoretical speculation into delivered, evidence-based periodontal treatment. She is serving now as the President of the European Medical Laser Association and as a Professor for PMS College in India, Kerala Thiruvananthapuram, where she put the basis of a Diploma Course in Laser. Her training in Cellular Technology and as well in Gene Therapy made her duty to study and investigate the COVID-19 crises. Tikkun, Olam.



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