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Bioptron hyperpolarized light (HPL): Advancement of bioptron vertical linearly polarized light (VLPL) in the treatment of skin & chronic wounds

Aim: The aim of this clinical research was to evaluate the effects of Bioptron linearly polarized light (480-3400nm) in the therapy of dermatosis.

Methods, Subjects: During the one year study we treated 50 patients with leg ulcers of different etiology. Bioptron linearly polarized light (LPL) covers visible & part of the infrared wavelengths of light (wave length 480 – 3400 nm, degree of polarization 95%, power density 40mW/cm², light energy 2, 4J/cm²) and is known to induce a biological response, known as photobiostimulation. The process of wound healing has 3 phases, which are not distinctly separated; 1st Inflammatory Phase (Catabolic Phase): hemostasis and inflammation, occurring immediately upon injury through 4-6 days. 2nd. Proliferative Phase (Anabolic Phase) is characterized by epithelization and angiogenesis (proliferation and migration). 3rd Re-modeling Phase is also known as phase of maturation and epithelization. All patients were treated with topic therapy according to TIME principles of Wound bed preparation (WBP). Each patient was treated with polarized light for 8 min/day, a distance of 10cm, like supplementary therapy. The effects of linearly polarized

light (LPL) on the wound healing of leg ulcers of different etiology were evaluated on daily basis. Long-term follow-up was performed after 1 month, 3 months, 6 months and 1 year.

Results: The results of this study showed that linearly polarized light (LPL) has a high influence on all phases of healing leg ulcers what resulted with faster healing of ulcers, completing the healing up process, less infection, eradications in some case of MRSA, reduce infection, time of hospitalization and length of antibiotic therapy, reduction of pain sensation, and improvement of quality of life.

Speaker Biography

Jasmina Begic is a Medical Consultant for BIOPTRON, Zepter International for Bosnia and Herzegovina, Founder of Association for Wound management in B&H, Founder and author of Euro-Asian Forum, one of founder of BALWMA. She is currently working as a Dermatovenerologist in Bioptron International team-Wound Healing. She finished her graduation and post-graduation studies at Medical School of University Sarajevo, Sarajevo, Bosnia and Herzegovina and completed her PhD in the field of Tissue Regeneration and Wound Healing from Indian Institute of Technology, Kharagpur. She is also active member in UEMS TF WH, EWMA, EADV.

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