

Laser Photo Bio Modulation (LPBM) in Skin Regeneration

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Background: Since the year 1968 the anti-inflammatory and regenerative effects of Non Surgical Laser procedures on the tissue irradiated are shown, as the effects on wound healing [1], skin rejuvenation and more [2-5]. In addition, Intense pulse lamps (IPL) and Light Emitting Diodes (LED) could have effects in human tissue regeneration, so scientific community calls this chapter of the medicine Photo Bio Modulation (PBM) [6-9].

Purpose: Aim of our study is to select the patients where some laser beams are best choice for the treatment of their skin lesions and to investigate further lesions where the effects of the lasers and light could be useful.

Study Design/Materials and Methods: Laser and pulse light wavelengths most frequently used are from 290 until 10600 nm. LPBM used with the procedure of the non-ablative rejuvenation, for wrinkles, cutaneous dystrophies, hypertrophic scars, stretchmarks, acnes. But lasers and light could have effects also on the body metabolisms and on the energy circulation of the body. We treated patients of both sex ranging from 14 to 70 years of age. The lesions were located on the face, pre-sternal region, lower abdomen, arms and femoral regions. Lasers were used with fluence 4-20 Joule/cm² and more, measured on the tissue; pulse light was used with 35-45 J/cm² indicated on the display of the instrument. We made cycles of 3-10 applications, at a rate of one application for 10 days.

Results and discussion: We evaluated the results each 4 applications, according to the clinical and morphological parameters color, depth, length, size of the lesions, absence/presence of inflammation and tissue regeneration. In total, positive results were obtained in high percentual of patients, with follow up positive after two years. Simultaneous irradiations with 2 lasers and pulse light seem to give better results in less time in the majority of lesions.

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