

NON-ABLATIVE PHOTOREJUVENATION WITH A SCANNED COPPER BROMIDE LASER

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Background: The task of reversing skin ageing with non-ablative devices is one of the most challenging at the beginning of the new millennium. The aim is to effectively treat the visible signs of sun damage, time, and lifestyle that influence our exposed areas. These signs may be dark stains, dilated blood vessels, wrinkles, lack of luminosity and elasticity, enlarged skin pores, uneven pigmentation and redness. Several procedures have been devised to improve this condition without exposing patients to the discomfort and hazards of ablative resurfacing. Visible and infrared lasers, pulsed light and electrical sources have been used for this purpose with various degrees of success.

Materials and Methods: The Scanned Copper Bromide Laser at 578nm light with adjustable pulse width provides a purpura free treatment. This wavelength is well absorbed by oxyhemoglobin, melanin and cytochrome p450. No anesthesia nor pre-treatment protocols are required. The treatment is performed under polarised light magnification. The postoperative regimen includes a moisturizer, sunscreen and free use of camouflage.

Results: A preliminary series of ten patients is presented in this study. Visible improvement in vascular redness, dilated capillaries, pigmented brown spots, skin texture, dilated pores and fine wrinkling noticeable after one single treatment. Histological slides show significant reversal of skin damage. The clinical results are more impressive than after a series of 5-6 treatments with other nonablative techniques, with virtually no downtime and no side effects, besides temporary darkening of pre-existing hyperpigmented areas.

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