Facial photo rejuvenation using two different intense pulsed light (IPL) wavelength bands.

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BACKGROUND AND OBJECTIVES: Intense pulsed light (IPL) systems are increasingly used for treatment of photo damaged skin. In the present study, we investigated the clinical efficacy and safety of two different wavelength bands generated by the same IPL device.

STUDY DESIGN/MATERIALS AND METHODS: An IPL device was equipped with either a 555-950 nm filter (VL), or a 530-750 nm filter (PR).

RESULTS: Fair, good or excellent clearance of visible telangiectasias was obtained in 81.8% of the patients (PR) and in 58.8% (VL). In the treatment of diffuse erythema, fair, good or excellent clearance was obtained in 72.7% (PR) and in 35.0% (VL). The PR filter was more efficient (P = 0.025) in reduction of diffuse erythema. The average number of treatments was 1.75 (PR) and 1.82 (VL). For the treatment of irregular pigmentation, fair, good or excellent clearance was obtained in 54.5% (PR) and in 61.9% (VL). Multiple treatments of irregular pigmentation were also evaluated. Using the VL filter more than two treatments did not induce further clinical improvement. The patients also scored their over-all satisfaction. Either fair, good or excellent results were reported by 66.7% (PR) and by 76.2% (VL). No skin atrophy, scarring or pigment disturbances were noted after the treatments. Swelling and erythema were registered by 2/3 (PR) and 1/3 (VL) of the patients.

CONCLUSIONS: The two IPL wavelength bands were both found to be effective in the treatment of photo damaged facial skin. The clinical efficacy and safety of the two different treatment procedures were comparable to those reported in earlier studies, and finally treatment with these filter combinations required less than half the fluence, no active cooling and fewer treatments.