

Effects of intense pulsed light in microstomia in patients with systemic sclerosis: A pilot study

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Abstract

Introduction: The effects of IPL on collagen structures is well known in the treatment of photo damaged skin. **Objective:** To investigate the effect of IPL on sclerotic skin by treating patients with microstomia due to systemic sclerosis. **Method and material:** 13 patients all with microstomia and systemic sclerosis was treated with IPL PR/VL applicator. They were treated in the perioral area 8 times with 3-4 weeks' interval and follow-up for 6 months. The outcomes were the inter-incisal distance and the inter-ridge distance. **Results:** A significant increased mouth opening of 4.1 mm (95% CI, 1,726-6,638, $P < 0,005$) was found in the inter-ridge distance when comparing the distance before treatment with the distance at six-month's follow-up. No significant difference was found in the inter-incisal distance. The patients experienced improved mobility and better control of lips movements after the treatments. **Conclusion:** IPL can improve the inter-ridge distance between the lips in patients with microstomia due to systemic sclerosis but does not affect the inter-incisal distance which is also depended on the mobility of the mandibular joints. This treatment can be considered an adjunctive therapy in patients with microstomia due to systemic sclerosis.