Lipolysis using a 980 nm diode laser: A retrospective analysis of 105 procedures

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Background: Laser lipolysis is a new commonly used and accepted modality for removal of unwanted fatty tissue.

Aim: The aim of this study was to evaluate the safety and efficacy of the 980 nm diode laser for lipolysis.

Materials & Methods: From May 2013 to November 2014; 56 patients underwent laser lipolysis. The treatment was performed using a 980 nm diode laser (OSYRIS, Hellemmes, France). After tumescent anesthesia, a 0.8 mm diameter microcannula housing a 600 μm optical fiber was inserted into the subcutaneous fat. The cannula was moved back and forth in a predetermined manner to get a homogeneous distribution of energy at the treated area. Laser settings were selected in relation to individual body areas: 6 W (chin, arm & leg), 9 W (abdomen, back & low back), 15 W (hips, buttock). Patient satisfaction was evaluated and side effects were recorded.

Results: One hundred and five (105) laser lipolysis procedures were performed on 56 patients. Different areas were treated: Low back (25), abdomen (24), legs (16), sub mental area (11), back (9), buttocks (8), arms (7), knees (2) and ankle (1). Mean cumulative energy was area dependent, ranging from a minimum of 2500 J to maximum of 45000 J. Ecchymosis were observed in almost all patients but resolved in less than 1 week for all patients. Hypertrophic scarring occurred in a patient on the incision area. Burn observed in a patient on the sub mental area. Contour correction and skin retraction were observed in 5 patients. There was no infection, hypopigmentation, bruising, swelling or edema. Patient satisfaction was very high. Patients were able to resume normal daily activities after 24 hours.

Conclusion: This clinical study showed that the removal of small volumes of unwanted fatty tissue can be performed safely and effectively using a 980 nm diode laser. We observed excellent patient tolerance and quick recovery time in this study.

Biography
Erdinc Terzi has received his Medical degree from Ankara University Medical School in Ankara. He has completed his Residency in Dermatology at Ankara University, Faculty of Medicine and Department of Dermatology from 1998-2002. He has been working as a Specialist of Dermatology at Universal Hospital Groups.

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