

Laser Technique Zaps Focal Areas of Excess Fat

Laser lipolysis without fat suction appears safe and effective for the removal of small volumes of focal fat, according to data presented at the annual meeting of the American Society for Laser Medicine and Surgery.

Based on MRI, patients who underwent laser lipolysis alone showed an average of 17% reduction in fat, said Karen H. Kim, M.D., a dermatologist in New York. Those treated under the chin showed the greatest average loss (25%); other areas averaged a 13% reduction.

In this study, 10 patients were treated with laser lipolysis using a Nd-YAG laser (Cynosure Inc.), and 12 were treated with laser lipolysis and the Tri-Active therapeutic laser massage device (12 treatments). There were also 10 control volunteers. The patients had unwanted fat less than 120 cc in volume. Cynosure provided equipment and funding for the study.

Treatment involves the use of a 1,064-nm Nd:YAG laser with a 100-mm optic fiber and 1-mm microcannula. The low-power laser produces a photothermal effect when in contact with fat, Dr. Kim said. Treated fat was allowed to drain naturally in the patients. The Tri-Active device was used on 10 patients to facilitate drainage.

Of the 30 patients enrolled, 29 completed treatment. The area under the chin was the most commonly treated area. Total energy ranged from 758 J to more than 7,000 J. Greater energy was used at larger treatment sites, Dr. Kim said.

At 3 months, patients who received treatment considered the treated area to have improved 37% on average, based on observation. For those treated with the Tri-Active device and for the laser lipolysis only group, the figures were 47% and 33%, respectively. The most common side effects were bruising, swelling, and tenderness. The technique seems to be well suited for the treatment of focal areas of excess fat, Dr. Kim said. She and her colleagues are planning a larger multicenter trial using the technique.

This technique has been used in South America, Europe, and Japan. Previous studies have shown that it destroys more adipocytes than cannulation alone. ■

By Kerri Wachter, IMNG News Service. Reprinted from SKIN & ALLERGY NEWS, June 2005. Based on a presentation at the annual meeting of the American Society for Laser Medicine and Surgery.