



**Sunday, 10 October 2004 - 7:50 AM
6444**

This presentation is part of: Cosmetic Papers

Mesoplasty: A New Approach to Non-Surgical Liposculpture

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Mesotherapy was first pioneered in France in 1952 by Michelle Pistor. Since its introduction it has gained widespread acceptance outside the United States. Currently, Mesotherapy is being used to treat a wide range of conditions including pain, alopecia, bone and joint disorders, in addition to lipodystrophy and cellulite. Mesotherapy involves a series of painless injections of nutritional supplements, vasoactive agents, and homeopathic remedies into the dermis overlying the area to be treated. Mesoplasty refers to the implementation of mesotherapy by a qualified plastic surgeon.

Despite the growing popularity of mesotherapy, there is a paucity of data available on the optimal technique and treatment regimen. In order to shed some light on this area, we prospectively evaluated Mesoplasty in the treatment of patients with lipodystrophy.

From September 2003 to March 2004, one hundred patients were prospectively enrolled in a double blind study to determine the effectiveness of the individual ingredients used in Mesoplasty. The patients were divided into 5 equal groups. A single body area was selected for treatment. Using aseptic technique each group of twenty patients was treated with a single regimen. An automated injector was used to deliver the injections into the dermis. Patients were treated weekly for 5 weeks followed by monthly maintenance therapy. Group A was treated with a vasodialator, Group B was treated with lipolytic agent, Group C was treated with homeopathic agent, group D was treated with a combination of all three agents listed above, and finally group E was treated with a placebo (saline).

At the completion of the study, all patients were given a questionnaire and a physician who was not involved in the treatments, and was unaware of the regimen used evaluated all patients. Review of the questionnaires revealed an overall satisfaction rating of good to excellent in 72% of patients. In addition, 16 patients (80%) in Group D reported a mean decrease in dress size of 2 sizes.

Objective physician evaluation included measures of circumference, pinch test, and patient weight. The largest number of patients experiencing a decrease in circumference was in Group D, 18 patients (90%). The mean decrease in circumference was 4.2cm around the waist and 2.5cm around each thigh. Groups A, C, and E had similar, yet small decreases in circumference which were not statistically significant. Pinch test was assessed in the flank area. Again, Group D had the largest number of patients showing a significant decrease in pinch test measurements (17 patients). The mean decrease in pinch test was 50%. Groups A, C, and E showed no statistically significant change in pinch test measurements. All patients were weighed before, during, and after completion of treatment. There was no statistically significant change in patient weight in any of the groups.

Mesoplasty has recently gained a great deal of media attention and popularity. This study demonstrates the effectiveness of Mesoplasty in the treatment of lipodystrophy with the use of combination therapy. Although patients obtained a moderate response to lipolytic agents, combination therapy proved to be significantly superior. In addition, patient satisfaction was greatest with combination therapy.

Interestingly, there was no significant decrease in patient weight as a result of treatment. This may be due to the fact that only isolated areas were treated, or possibly due to the fact that a modest reduction in fat volume can significantly alter shape, but does not drastically affect the weight. We are currently evaluating various combination therapies and treatment protocols to determine the optimal ingredients and schedule of treatment. With ongoing experience many of the questions surrounding Mesotherapy can be elucidated.