

COMMENTARY

LIPOSUCTION IN THE CONSENSUS DOCUMENT

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Although lymphedema is presently incurable, a significant contribution to the treatment of those afflicted with this condition in the upper extremity was made by the introduction of liposuction as a method of treatment by Brorson and colleagues (1,2). Their findings were of particular interest to plastic surgeons engaged in the reconstruction of patients with post-mastectomy and post-lumpectomy deformities, often in combination with postoperative radiotherapy, who were observed to have associated arm edema. For many of these patients, regimens of complex decongestive physiotherapy (CDPT) were not effective, despite the application of those methods by therapists with specialized training. Additional observations that the swelling of lymphedema in the upper extremity was accompanied by the presence of large quantities of fat, as demonstrated by imaging studies and in the liposuction aspirate, encouraged plastic and reconstructive surgeons at Harvard Medical School to consider this technique. In November of 2001, I and two plastic surgical colleagues traveled to Malmö, Sweden, to observe directly Dr. Brorson's procedure, and to confer with and examine patients who had undergone it. Our impressions were strengthened by the positive clinical results we witnessed.

Based on that experience, we decided to invite Dr. Brorson to speak at the Harvard Plastic Surgery Grand Rounds Lecture so

that our entire Faculty could evaluate his findings. Following such scrutiny and a conclusion that liposuction appeared to help patients with lymphedema, we began to use this clinical application for treatment of patients with upper extremity lymphedema and to a lesser extent, for the lower extremity also. Concomitantly, the large number of patients in our region who were seeking treatment of lymphedema stimulated us to organize a dedicated clinic. Our Lymphedema Clinic, based in one of the major teaching hospitals (Beth Israel Deaconess Medical Center) of Harvard Medical School, has attracted patients from all over the northeastern United States and beyond. The needs of patients with lymphedema have temporarily outstripped our resources, so much so that we are planning to double our original clinical capacity. As we approach a review of our first one hundred patients at the Center, we have seen favorable early results in a group of nine patients treated by liposuction. Despite the small size of the patient group, and the short follow-up of only one and a half years, clinical improvements have been sustained. We look forward to providing a comprehensive report of our results when a longer follow-up has been achieved. Fortunately, there have been no instances of hemorrhage or serious infection, but some cases of recurrent swelling or drainage have been seen.

Given the complexity of lymphedema and the difficulty of its management and treatment, there appear to be extremely few plastic surgeons, dermatologists, or any other practitioners skilled in liposuction willing to become involved. The strong desire among all of us to want to help these patients notwithstanding, severe disincentives to treat exist in our practice environment, including low reimbursement, insurance company coverage hurdles, a punitive malpractice system, and the inherent problems and shortcomings of current clinical approaches. These factors have discouraged many colleagues, and not surprisingly, our patients report a dearth of physicians willing to treat them.

The cure for lymphedema eludes us, but scientific observations can often lead to important discoveries and ultimately, successful treatments. Adipose tissue proliferation in the limbs of patients with lymphedema, and our efforts to both study and alter it, like similar earlier recognition of lymphatic endothelial receptor sites and

their genetic controls, have spurred our interest in this vexing problem.

REFERENCES

1. Brorson, H, H Svensson: Liposuction combined with controlled compression therapy reduces arm lymphedema more effectively than controlled compression therapy alone. *Plast. Reconstr. Surg.* 102 (1998), 1058.
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