Ultrasound-assisted Lipoplasty: My Personal Observations

To the Editor:

I enjoyed reading the articles “Ultrasonically Assisted Body Contouring” and “Liposuction With Sonic Sculpture: Six Years’ Experience With More Than 600 Patients,” published in the summer 1996 issue of Aesthetic Surgery Quarterly. My personal experiences with ultrasound-assisted lipoplasty (UAL) have differed from those of many authors who have published and reported on the subject in the United States. I would like to share my personal observations regarding UAL with your readers.

I first became aware of the technique in 1991 while attending a meeting in Paris. UAL generated considerable enthusiasm, and the following year I purchased a machine and began using it in my practice. It soon became apparent that many problems were associated with the technique. In conversations with my peers it also became obvious that many other practitioners in Europe were beginning to have doubts about UAL’s efficacy and safety. In particular, skin burns resulting from use of the machine manufactured in Italy have been reported and demonstrated at European plastic surgery meetings.

It takes longer to remove fat with UAL than with conventional liposuction. An argument might be made that patients have less bruising in the treated areas when UAL is used; however, I believe that less bruising occurs because the cannula has to be moved slowly and with reduced suction power and is thus less traumatic. When I reduced the power of the suction and slowed down the motion of the cannula with traditional liposuction, I also saw less bruising, but of course the surgical time was increased.

With patients’ permission I used UAL on one lower extremity and regular liposuction on the opposite side. Immediately following surgery, patients had less bruising on the UAL side, and the skin appeared smoother in those instances in which I was trying to treat cellulite with subdermal UAL. However, after 6 months there was absolutely no discernible difference between the two sides. In fact, I have had my best results in cases of cellulite when I used traditional liposuction with very small cannulas. Although patients had less actual pain on the UAL side, they complained about having a deep burning sensation.

I have been disappointed with UAL as a treatment for the upper arms, knees, inner thighs, and ankles. When I analyzed my patient population I found that in nearly half of the cases that I treated with UAL, a revision was necessary, whereas the incidence of “touch-ups” was less than 10% when conventional liposuction was used. The fatty tissue was not as homogenous as we thought, and thus the ultrasound waves were dissolving it irregularly and thus causing uneven skin. These were also the observations of some of my other European colleagues. I also have concerns about the possible dangers of using an ultrasonic device near the mediastinum or the epigastrium.
Certainly from a marketing standpoint both the media and patients love a procedure on the “cutting edge.” I appeared twice on television reporting about UAL—at that time, I spoke positively about the procedure. In addition, some patients have the mentality that “if it is more expensive, it has to be better.” In Europe the machines cost about $30,000 and require a $500-per-year manufacturer’s check-up and special suction tubing that costs about $50 per use. It should be noted that the machine I used for the procedures was considered “state of the art” and was upgraded by the company on three occasions. However, because of my concerns about the possible dangers of UAL, the expense, and my disappointment with the results, I sold the device after using it for 5 years. Further research and improvement of the technology is necessary before I will consider using UAL again.

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70/8/80968