Suction-assisted lipectomy has steadily evolved over the past 20 years and has now become the most frequently performed esthetic surgical procedure by plastic surgeons. The introduction of the tumescent technique has allowed larger volumes of fat removal with considerably less blood loss. Ultrasound-assisted lipoplasty removes fat through an emulsification process, and provides better preservation of vascular tissues. With the advent of more efficient cannulae and powerful suction machine, liposuction can now be performed safely and quickly.

In this paper, an updated liposuction technique, which has been considered the standard method, is presented. The surgical technique to be used is based on several steps that need to be followed by the operating surgeon to achieve appropriate results.

1:Pre-operative planning and preparation: A standard surgical hemato-chemical profile is requested and special attention should be paid to the hemoglobin level. Topographic markings are made to indicate progressively thicker areas of fat to be removed. The usual preoperative evaluation of subcutaneous tissue thickness with the pinch test is helpful in determining where to place these markings. The markings should be realized with the patient in the standing position and all of the superficial irregularities highlighted.

2:Tumescent infiltration: A large volume of physiological solution containing lidocaine, epinephrine and sodium bicarbonate is infiltrated into the treatment site.

3:Aspiration of the emulsified fat: It is important to use very careful movement of the cannulae avoiding any excess pressure, using the hand only as a guide for surgical action.

4:Post-operative care: An elastic compression needs to be maintained on the treated area for 3 months postoperatively to achieve good results.

The multiple Layer liposuction (MLL) technique, which was presented at the congress of JSAS in 2004 by the author, is introduced to achieve the refinement of conventional liposuction. MLL, in which subdermal fat is considered to exist in deep, superficial and intermediate layers, removes fat layer by layer resulting in smooth body contour post-operatively.

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