

## Liposuction: Keeping It Safe!

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Sir,

Liposuction is one of the most common procedures performed worldwide and in the United States.<sup>1</sup> With the popularity of the procedure, it is mandatory that it be done safely and adequately.

With many authors reporting maximum volume of liposuction per session as 5L, we believe that this volume can be increased even more when maximum safety precautions are applied. Any number does not really reflect safety; patients are different regarding their body mass indexes, their functional reserves, and, of course, their needs.<sup>2</sup> With a new era of high-definition liposuction introduced by Hoyos and Millard<sup>3</sup> more than a decade ago, 5L are usually not enough.

Safety starts with first patient encounter at your office. Paying attention to the patients' demands and expectations is crucial. Patients whose expectations are unrealistic should not be operated on. Preoperatively, we request a complete blood picture, a coagulation profile, and kidney and liver functions for all our patients. Patients with hemoglobin <12g/dL are not candidates for the procedures. Liposuction is moderately stressful surgery, so patients with American Society of Anesthesiologists classification >2 are not operated on as well.

Tranexamic acid (TXA) has shown promising results in liposuction.<sup>4</sup> We prefer using 10mg/kg on the fluid infiltrated; a 70-kg patient will have 700mg of TXA. Together with vasoconstrictive effect of epinephrine, TXA toxicity is less likely to occur.

We use sequential technique for liposuction, starting with right lateral position, followed by infiltration and liposuction. Then, the patient is turned to left lateral followed by supine position. This sequential liposuction technique minimizes the systemic absorption of lidocaine (together with the vasoconstrictive effect of epinephrine, high lipid solubility of lidocaine, vessel compression by the fluid injected, and the low dose used; 1%); hence, we have not experienced a single case of xylocaine toxicity.

Urinary catheterization is done for all our patients to monitor the urine output and fluid balance. This is also important to empty and avoid the bladder during supra-pubic liposuction. The catheter is removed immediately after surgery to encourage early patient ambulation. In general, fluid replacement follows this rule: "0.25 mL of aspirate over 5L." We prefer using super wet rather than tumescent infiltration, as the blood loss is the same, but the stresses are less.<sup>5</sup>

The liposculpture procedure lasts around 3–4 hours, which might increase the risk of deep venous thrombosis, and eventually pulmonary embolism. To avoid this, compression stockings are applied in perioperative period, together with early ambulation for all our patients, plenty of fluid intake (both orally and intravenous). We add low molecular weight heparin to all patients: 40 U, 4 hours following the procedure for 4 days. At this dose, no hematomas have been encountered.

To maximize safety even more, all our patients stay overnight in the hospital with a plastic surgeon on-duty to watch over the patients' needs with early management of complications, if any occurs.

The demanding era of high-definition liposuction has entailed us, as plastic surgeons, to consider the patients' demands but without endangering their safety or well-being; hence, safety should be continuously assessed and addressed.

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### DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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