Letter to the Editor:

I would like to share my experience regarding the use of small-caliber blunt needles (microcannulae) for infiltrating anesthesia, because their use has resulted in a significant improvement in the way I anesthetize my patients.

Flexible and blunt microcannulae have been used in Europe for the infiltration of dermal fillers for the past 2 years with great success. These microcannulae are long needles with a blunt closed end and a lateral distal hole through which the solution is extruded (Figure 1). They are flexible, long (3–5 cm), and thin (25–30 G). Their main advantages lie in the reduction of pain during the infiltration (because there is no sharp end), less chance of bruising (the blunt ends do not break vessel walls), and lower risk of intravascular injection of the filler.

After using these microcannulae for infiltration of dermal fillers and noting the significant reduction in pain compared with the classical infiltration with 27 to 30 G sharp needles, I started using these microcannulae for infiltrating local anesthetics in hair transplant procedures (in donor and recipient areas) because large cutaneous areas need to be anesthetized. As far as I know the use of these thin-caliber microcannulae for infiltrating anesthetics has not been reported, and its use would overcome one of the reported disadvantages of the tumescent anesthesia, namely the pain provoked by the multiple sharp needle injections.1 In addition, the lower likelihood of inadvertent intra-arterial injection of the anesthetic, a side effect (facial blanching) that Lin and colleagues recently reviewed in this journal, would be an additional significant advantage to be taken into consideration.2

To introduce the microcannula, I start by raising a superficial wheal with the anesthetic using a 30 G needle. Then I make the entry point using a 20 G needle and gently introduce the microcannula at the subcutaneous tissue level, injecting the anesthetic solution as I move along (Figure 2). Because the microcannula that I use is 4 cm long, I raise another wheal approximately every 4 to 5 cm and introduce the microcannula for more field infiltration.

Because infiltration with the microcannula is at the subcutaneous and not the dermal level, I introduce more volume of anesthetic and consequently have to dilute the concentration of lidocaine, which results in a longer-lasting effect of the anesthesia, a concept similar to that of tumescent anesthesia that has been reviewed elsewhere.3,4 For the tumescent anesthetic solution, I normally prepare the lido-
caine at a concentration of 0.3%, with variable amounts of epinephrine depending on the type of surgical procedure to be performed.

Given my satisfactory experience, I have lately extended the use of the microcannulae for anesthesia not only in hair transplantation procedures, but also whenever I need to anesthetize large areas of the face or body, for example, for full-face anesthesia with ablative laser resurfacing or anesthesia involving large cutaneous areas before laser tattoo removal.

References


FRANCISCO JIMENEZ, MD
Clinica Dr. Jiménez-Acosta
Las Palmas, Canary Islands
Spain

RE: Micropunch Technique

Letter to the Editor:

I read with interest Dr. Yamamoto’s article. There are several issues that I would like to mention about the use of the micropunch technique in the donor and recipient areas.

Donor Harvesting and Graft Preparation

Generally speaking, we have two options for graft preparation using the donor strip technique and microscope. One consists of the classic follicular unit transplantation, in which the grafts are separated in single follicular units (1–4 hairs each), and the surgeon matches the graft size with the instrument (needles, blades, or implanters) for making the recipient sites (Figure 1). In the second option, the follicular transplantation technique of cut-to-size is performed, in which the surgeon requires specific graft sizes and follicular units (double or triple) to achieve the surgical plan.

If both surgical techniques are done properly, the surgeon can create the angle, direction, and tilt of the recipient sites according to the particular case, including the desired density. If the slit technique is not done properly, the patient will have more scarring, less hair growth and survival of the transplanted units, and unnatural-looking results.

Follicular unit extraction is another surgical option for donor harvesting, which also has its associated advantages, disadvantages, side effects, and complications (tiny scars and hypopigmentation).