Saving time and money in mammaplasty - 'Peeling orange' de-epithelialization is simple to learn and do

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Orlando, Fla. — When performing breast reduction, consider using a variation of scalpel de-epithelialization that could save you time in the operating room and, as a result, money.

According to Adil Ceydeli, M.D., M.S., the "peeling orange" de-epithelialization technique that he uses can reduce de-epithelialization time by more than half when compared with traditional scalpel de-epithelialization. He says the technique is "rapid, easy to perform with a short learning curve, requires no special equipment, and provides precise de-epithelialization of the pedicle."

It is particularly beneficial for reducing the time needed to de-epithelialize long pedicles.

Dr. Ceydeli is a plastic surgery fellow in the division of plastic and reconstructive surgery at the Medical College of Georgia, Augusta, Ga. He explains the method he uses, speaking in a presentation at the annual meeting of the American Academy of Cosmetic Surgery here earlier this year.

Similar to peeling an orange, the modified scalpel de-epithelialization spares the subdermal plexus, which further increases the blood supply to the pedicle and nipple areola complex (NAC). It also maintains the strong dermal layer, giving structural support to the pedicle and making it easier to shape the breast. The technique also allows for removal of the entire epidermal layer, thus avoiding the possibility of epidermal inclusion cysts forming in the future.

Dr. Ceydeli offers an overview of the steps involved in performing the "peeling orange" de-epithelialization, which he estimates requires 15 to 20 minutes for him to perform in both breasts, compared with 30 to 40 minutes for other surgeons performing scalpel de-epithelialization.

"If the average operating room time costs $20 per minute, then $300 to $400 can be saved per patient by this technique." He extrapolates that, with more than 100,000 breast reductions performed annually in the United States, estimated national savings of $30 million to $40 million in operating room time expenses could be realized.

**Technique outline**

Dr. Ceydeli offers this description of his technique:

To begin, mark the perimeters of the inferior pedicle and NAC. Apply damp lap pads around the base of each breast in tourniquet fashion to create breast tension needed for de-epithelialization.

Using a No. 10 scalpel blade, make multiple partial-thickness intradermal incisions along the pedicle. Exclude the NAC and space the incisions 1 cm to 2 cm apart. This creates...
multiple vertical skin strips that can resemble orange peels.

De-epithelialization is simplified and expedited because these skin strips are held by traction force both at a 90-degree angle to the surface and in a caudal direction simultaneously. Rapid blade strokes can be made in the mid dermis, which degloves the pedicle skin in a mid dermal plane.

**Risk/benefit comparison**

Dr. Ceydeli says the peeling orange de-epithelialization can benefit the patient through reduced duration of anesthesia, decreased risk of future epidermal inclusion cyst formation and good circulation maintained to the NAC.

“There are no risks to the patient,” Dr. Ceydeli tells *Cosmetic Surgery Times.*

For the cosmetic surgeon, the biggest benefit is reduced operating room time and associated costs.

He says other de-epithelialization techniques fall short when compared with the peeling orange de-epithelialization system. While pedicle deskinning using electrocautery is supported by a good number of cosmetic surgeons, Dr. Ceydeli says pedicle de-epithelialization does a better job of maximizing circulation to the NAC and maintaining structural integrity of the pedicle, particularly in fatty breasts. Because deskinning frequently encounters large subcutaneous vessels, blood loss is an issue.

With dermatomes, de-epithelialization is frequently incomplete, leading to another method being required to clear the entire pedicle. Also, dermatomes can be cumbersome and are not always available.

Carbon dioxide laser de-epithelialization can be rapid, is accompanied by virtually no bleeding, and does not require rigid immobilization of the breast. However, wound healing is delayed, inclusion cysts formation is possible, costs are high and special equipment and training are required.