

4. Lockwood TE. Fascial anchoring technique in medial thigh lifts. *Plast Reconstr Surg.* 1988;82:299–304.
5. Allen RJ, Haddock NT, Ahn CY, Sadeghi A. Breast reconstruction with the profunda artery perforator flap. *Plast Reconstr Surg.* 2012;129:16e–23e.

## Reply: Avulsion Thighplasty: Technique Overview and 6-Year Experience

*Sir:*

We applaud Drs. Razzano et al. for bridging the gap between cosmetic and reconstructive surgery with their observation that a thigh lift procedure may compromise a potential future reconstructive donor site, and that this possible future loss of reconstructive option should be included in the preoperative consent form. As the authors noted, the loss of potential future reconstructive sites has already been debated in the abdomen, where an abdominoplasty can void the first-choice reconstructive options.

Although there have been no case reports to our knowledge of the use of the medial thigh tissues as a transverse upper gracilis flap or a profunda artery perforator flap after a thigh lift to perform a reconstructive procedure, the point of *potentially* losing a donor site is interesting, especially in a litigious American society. It is also worth noting that the thigh lift procedure<sup>1</sup> predates the first successful free skin flap performed in a human,<sup>2</sup> and although an aesthetic procedure can potentially preclude a future reconstructive endeavor in the same body area, the inverse is also true.

Drs. Razzano et al. suggest that the posterior perforating vessels of the profunda artery perforator flap may be preserved after avulsion thighplasty and that it could possibly still be a donor source, whereas the transverse upper gracilis flap is less likely a valid source, as the perforating vessels fall directly over the skin resection pattern for avulsion thighplasty.

We have no experience dissecting these perforators in either case after thigh lift, but theoretically, both vascular pedicles and their perforators would remain intact after an avulsion thighplasty, as the lymphatics and blood vessels are largely undamaged by the technique; however, we do not know how widely these vessels perfuse their newly overlying skin after resection of the redundant skin.

Two other major factors that might still restrict the use of these flaps after an avulsion thighplasty would be whether there would be enough skin laxity after the thigh lift to close a new donor site, and whether the remaining pedicles would perfuse enough tissue across the surgical scars from the avulsion thighplasty to make them reliable options. The timing to potentially reperfuse the overlying skin is also not known and to our knowledge has not been studied.

Currently, there are only theoretical concerns that a free flap from the medial thigh cannot be performed after an avulsion thighplasty. This is certainly an interesting area for future research and we would like to thank Drs. Razzano et al. for stimulating the conversation.

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## DISCLOSURE

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

## REFERENCES

1. Lewis JR Jr. Correction of ptosis of the thighs: The thigh lift. *Plast Reconstr Surg.* 1966;37:494–498.
2. Harii K, Omori K, Omori S. Successful clinical transfer of ten free flaps by microvascular anastomoses. *Plast Reconstr Surg.* 1974;53:259–270.

## Correction of Nasolabial Folds Using Hyaluronic Acid Filler Plus Subcutaneous Injections of Carbon Dioxide

*Sir:*

**W**e read with great interest the article by Joo et al. entitled “A Randomized Clinical Trial to Evaluate the Efficacy and Safety of Lidocaine-Containing Monophasic Hyaluronic Acid Filler for Nasolabial Folds.”<sup>1</sup> The goal of this clinical trial was to compare the efficacy and safety between two different hyaluronic acid fillers containing 0.3% lidocaine for the correction of nasolabial folds. Clinical efficacy and safety were assessed by blinded investigators, independent expert panels, and patients based on the Wrinkle Severity Rating Scale and the Global Aesthetic Improvement Scale at weeks 8, 16, and 24 after the injection. This randomized, double-blind, clinical trial showed good efficacy for both products in terms of wrinkle severity improvement and injection pain reduction.

A prominent nasolabial fold is a cosmetic problem. Currently, numerous therapeutic modalities are available for pronounced nasolabial folds, with variable efficacy. Botulinum toxin, hyaluronic acid filler, subcision technique, growth factor concentrate, and platelet-rich plasma are only some examples.<sup>2–4</sup>

The main application of hyaluronic acid filling, in aesthetic medicine, is the augmentation of soft tissues. The carbon dioxide therapy, instead, improves quality and

elasticity of the dermis and increases the oxygen release to the tissue through an enhancing of the Bohr effect.

In a recent study, we compared hyaluronic acid filler and hyaluronic acid filler plus subcutaneous injections of carbon dioxide for cosmetic correction of nasolabial folds.<sup>5</sup> Forty healthy female patients received a blinded and randomized treatment on nasolabial folds for cosmetic correction of the nasolabial folds. The results were evaluated by two blinded plastic surgeons after the implant (1 week and 4 and 6 months) using the Global Aesthetic Improvement Scale, and at the same time, each patient was asked to express her opinion about the cosmetic result.

Any long-term adverse reaction was reported. The blinded evaluation at 4 and 6 months from implantation showed in all patients maintenance of a good cosmetic result, higher for the side treated with carbon dioxide therapy plus hyaluronic acid. We think that this combination therapy should be taken into consideration when the treatment of moderate and severe nasolabial folds is approached, because of its easy application and excellent results.

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#### DISCLOSURE

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#### REFERENCES

1. Joo HJ, Woo YJ, Kim JE, Kim BJ, Kang H. A randomized clinical trial to evaluate the efficacy and safety of lidocaine-containing monophasic hyaluronic acid filler for nasolabial folds. *Plast Reconstr Surg*. 2016;137:799–808.
2. Kane MA. The effect of botulinum toxin injections on the nasolabial fold. *Plast Reconstr Surg*. 2003;112:66S–72S; discussion 73S–74S.
3. Robati RM, Abdollahimajd F, Robati AM. Evaluation of subcision for the correction of the prominent nasolabial folds. *Dermatol Res Pract*. 2015;2015:976153.
4. Sevilla GP, Dhurat RS, Shetty G, Kadam PP, Totey SM. Safety and efficacy of growth factor concentrate in the treatment of nasolabial fold correction: Split face pilot study. *Indian J Dermatol*. 2015;60:520.

5. Nisi G, Cuomo R, Brandi C, Grimaldi L, Sisti A, D'Aniello C. Carbon dioxide therapy and hyaluronic acid for cosmetic correction of the nasolabial folds. *J Cosmet Dermatol*. 2016;15:169–175.

### A Randomized Clinical Trial to Evaluate the Efficacy and Safety of Lidocaine-Containing Monophasic Hyaluronic Acid Filler for Nasolabial Folds

Sir:

We read with great interest the article by Hong Jin Joo et al.<sup>1</sup> entitled “A Randomized Clinical Trial to Evaluate the Efficacy and Safety of Lidocaine-Containing Monophasic Hyaluronic Acid Filler for Nasolabial Folds.” Because of the high standards of the global filler market that demands constant material improvement, this article highlights the need for development of safe hyaluronic acid fillers.

However, one of the two parameters evaluated and compared in this study is clinical efficacy of two different (monophasic and biphasic) hyaluronic acids, Neuramis Deep Lidocaine and Restylane Perlane-L. Interestingly, visiting Restylane’s site (Galderma Laboratories, Fort Worth, Texas),<sup>2</sup> in a section entitled Monophasic Biphasic Semantics, it is concluded that “The terms monophasic or biphasic have no relevance at all to the clinical efficacy of fillers and are a gross misrepresentation of the truth.” We feel that this contradiction is in direct conflict with this important study’s concept. We also believe that the authors need to clarify more specifically how the monophasic or biphasic nature of hyaluronic acid interacts with clinical efficacy. Like other authors, we support that biphasic hyaluronic acid is a myth and that discrimination of hyaluronic acid fillers as biphasic or monophasic is proved scientifically incorrect and should therefore be avoided.<sup>3</sup>

We believe that further research needs to be performed to clarify the true relation between terms such as clinical efficacy and hyaluronic acid components. Until then, studies such as this one need to be carefully filtered to avoid misunderstandings that might lead to confusion. Plastic surgery research needs a solid and clear base of data to move on.

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