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of Subcutaneous Temporal Autologous
Micro-fat Augmentation”*

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Invited Discussion on: “Efficacy and Safety of Subcutaneous Temporal Autologous Micro-fat Augmentation”

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I found myself reading this article [1] with much curiosity as fat grafting of the temporal area is a therapy not routinely applied in the Western population, and which is surrounded with at least some controversy. The superficial subcutaneous plane in the temple has a dubious reputation when it comes to soft tissue filling [2], and the use of fat as a filler is no exception to this.

The majority of the papers discussing temporal fat grafting in the last decade come from Oriental authors. This paper very eloquently elucidates one of the reasons for this difference in popularity of the procedure: in the Asian world a full temple is a sign of wealth and of high social ranking. Therefore, it is rather the younger, active population requesting a plumping of the temporal area, to enhance their physical appearance. Consequently, in most papers by Asian authors, including this one, the average age of the patients is somewhat lower than in Caucasian populated papers. In the Western world, temporal lipofilling is mainly part of a rejuvenation procedure, hence in a population which often already suffered some dermal atrophy. The main caveat when replenishing the temple in our Caucasian patients is visible irregularities due to

uneven deposition of the grafts or uneven take of the graft. Asian individuals usually have a thicker facial and temporal dermis, which makes it more forgiving in covering up small irregularities. This explains why the authors have taken the initiative to observe the outcome of their series of superficial subcutaneous lipofilling, instead of the more traditional multilayer approach [3].

The clinical results presented show a good cosmetic outcome, especially in the light of the ethnic preferences of the Chinese people. The consistency of the postoperative pictures could be improved by a simple method applied by ourselves. The oblique view, which very often has a different angle of rotation than the pre-op picture, can be made consistent by always placing the pupil and the tip of the nose in line with the same vertical straight (Fig. 1).

Although the measures taken by the authors are very likely to increase the safety of the procedure, the size of the cohort and the absence of a control make it difficult to make hard conclusions concerning safety with respect to other methods.

The satisfaction rate after a follow-up of 20.4 ± 9.6 months (from 7 to 44 months) was evaluated with VAS (Visual Analogue Scale) satisfaction score and HSRS (Hollowness Severity Rating Scale) is claimed to be 92.31%, a figure that is difficult to reconstruct from the scores of the VAS and HSRS. The authors compare it with a 95% satisfaction rate in a study by Zhanqiang Li et al. who studied 105 cases and a 81.3% satisfaction rate [4] in 208 cases described by Su-Shin Lee et al. [5]. These figures do give the impression of being comparable, but there is no mention of statistical significance of the difference.

Nevertheless, it is true that the authors have a more limited second surgery rate than the other studies. One possible explanation could be the absence of muscle action in the subcutis which spares the fat graft from mechanical

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Fig. 1 By projecting an imaginary vertical line from the pupil to the nasal tip of the photograph subject, it is easy to reproduce exactly the same rotation in the preoperative as in the postoperative views



wear, improving the graft take. The choice of the authors to have used a microfat grafting technique is also a beneficial factor on fat graft survival [6].

It is remarkable that the method described involves a systematic overcorrection of 30%. This may indeed reduce the need for reintervention, but to my opinion involves an at least temporary deformity imposed on the patient while the volume settles down to the desired one. We know that this may take 3–4 months, which may be difficult to tolerate for some patients.

Finally, the observation made by the authors that more volume is needed in the elderly part of the study population is most likely due to the well-known muscular and bony atrophy in the temporal area. This is the very reason that temporal lipofilling is an integral part of facial rejuvenation treatment in the Caucasian population.

In summary, this article describes in sufficient detail a method for subcutaneous grafting of the temporal area which delivers satisfying cosmetic results, in the absence of a number of complications described in other multilayer fat grafting techniques.

The authors correctly mention the limitations of their work including the small size of their study population and the absence of a control group.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflicts of interest to disclose.

Human and Animal Rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent For this type of study, informed consent is not required.

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