Letter to the Editor

Response to "Commentary on: Gluteal Augmentation Techniques: A Comprehensive Literature Review"

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We thank Dr Senderoff for his thoughtful comments on our article entitled "Gluteal Augmentation Techniques: A Comprehensive Literature Review," published in the May 2017 issue of *Aesthetic Surgery Journal*.[1,2] We are indeed honored to have Dr Senderoff, a surgeon who has widely contributed to our understanding of this subject, discuss our paper. His previous investigations on implant-based gluteal augmentation, with a specific reference to the US experience of using solid silicone implants, can be considered as fundamental for every surgeon interested in performing gluteoplasty effectively and safely.[3-6]

Among the five techniques which we identified and examined in detail, namely gluteal augmentation with implants (GAI), autologous fat grafting (AFG), local flaps (LF), local tissue rearrangement (LTR), and hyaluronic acid gel injection, Dr Senderoff's Commentary has focused on GAI and AFG, the two most commonly performed.[7]

Our analysis, which included the entire body of the literature without restriction of time or language of publication, examined 4781 patients treated with GAI and 2609 patients treated with AFG, reporting an overall complication rate equal respectively to 30.5% for GAI and to 10.5% for AFG.[1] The satisfaction of patients and surgeons, although not evaluated quantitatively due to the heterogeneity of assessment methods used by the authors, was consistently reported as high for both techniques.[1]

However, the substantially lower rate of complications observed after AFG is balanced by the potentially fatal risk of fat embolism, which was reported to occur in 0.2% of the cases included in our analysis, in one of which led to death.[1] The seriousness of this complication was recently investigated in depth by a Task Force of the Aesthetic Surgery Education and Research Foundation (ASERF), specifically formed to this end.[8] This remarkable group of researchers concluded that significantly higher mortality rates appear to be associated with gluteal fat grafting than with any other aesthetic surgical procedure and recommended to avoid fat injections into the deep muscle using cannulae smaller than 4 mm and pointing the injection cannula downwards. Conversely, despite the high rate of complications, GAI presents the specific advantage of allowing a substantial and predictable volumetric enhancement with minimal incisions placed in the gluteal cleft or in the sacral/parasacral area.[9]

With all this knowledge in mind, Dr Senderoff concluded his Commentary not advocating one surgical technique over another for gluteal augmentation and stating that it is up to each individual surgeon and patients to determine which strategy for success is the best.[2]

However, as we emphasized in our paper, the different rates and types of complications related to the different technical options should not be the only aspects considered for an adequate surgical planning. The need to reshape the gluteal region according to universal and ethnic specific ideals of beauty plays indeed a relevant role in the selection of the most appropriate technique.[1,10]

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On this regard, according to Singh, universal aesthetic ideals of "beautiful buttocks," regardless of ethnicity, are defined by a ratio of the waist circumference at its narrowest to the thigh (hip) circumference at the level of maximum prominence of the buttocks (waist-to-hip ratio) equal to 0.7, while ethnic differences have been described by Roberts et al as related to buttock size, lateral buttock fullness, and lateral thigh fullness.[10-12] To achieve these features of attractiveness, Roberts et al suggested that buttock augmentation usually requires a combination with reduction of the waist and low back. They supported the use of AFG, which allows augmentation not only of the medial two thirds of the buttocks but also of the lateral buttocks and the lateral thighs.[1,10,12]

Finally, Dr Senderoff's Commentary did not consider two options which we presented as treatments of election in case of massive weight loss: local flaps (LF) and local tissue rearrangement (LTR). The relevance of these techniques, ideally associated with body and buttock lift, will be growing due to the increased prevalence of successful bariatric surgery procedures which is already contributing tremendously to the expansion of body contouring as a subspecialty of plastic surgery. It is therefore recommended for plastic surgeons to be familiar with these procedures.

In conclusion, we recommend a deep knowledge of all available techniques, which were reviewed in detail in our comprehensive review, in order to offer the best tailored treatment to our patients. In any case, high qualification and tremendous skill are required to ensure safety and successful outcomes.[1,6]

Disclosures

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