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## DISCLOSURE

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

### REFERENCES

- 1. Torabi R, Stalder MW, Tessler O, et al. Assessing age as a risk factor for complications in autologous breast reconstruction. *Plast Reconstr Surg.* 2018;142:840e–846e.
- Massenburg BB, Sanati-Mehrizy P, Ingargiola MJ, et al. Flap failure and wound complications in autologous breast reconstruction: A national perspective. *Aesthetic Plast Surg.* 2015;39:902–909.
- Shubinets V, Fox JP, Sarik JR, Kovach SJ, Fischer JP. Surgically treated hernia following abdominally based autologous breast reconstruction: Prevalence, outcomes, and expenditures. *Plast Reconstr Surg.* 2016;137: 749–757.
- 4. Lau B, Kim H, Haigh PI, Tejirian T. Obesity increases the odds of acquiring and incarcerating noninguinal abdominal wall hernias. *Am Surg.* 2012;78:1118–1121.
- Kuykendall LV, Zhang A, Tugertimur B, et al. Outcomes in deep inferior epigastric perforator flap and implantbased reconstruction: Does age really matter? *Cancer Control* 2018;25:1073274817744603.

# Reply: Assessing Age as a Risk Factor for Complications in Autologous Breast Reconstruction

## Sir:

We would like to thank the authors for their letter regarding our article,<sup>1</sup> and for their obvious enthusiasm for autologous breast reconstruction options in the elderly patient population. We share the belief that perforator free flaps in women older than 65 years are a viable and high-quality option for breast reconstruction. The authors raised three concerns: comparing complications in different types of autologous reconstruction, looking at donor-site morbidity as an outcome measure, and not examining patient-reported long-term satisfaction outcome measures.

We believe good clinical investigation must begin with a specific question and clear definitions of predictor variables, outcome measures, and statistical choices. Our methodology is well described in the appropriate section of the article. In this study, our primary predictor variable was age cohort and our outcome measures were short-term postoperative complications and risk in the context of deep inferior epigastric artery perforator flap breast reconstruction. The motivation behind this article was the belief that surgeons may be less inclined to offer this operation in elderly patients because of the principle of nonmalfeasance if there are concerns regarding immediate surgical risk. We neither neglected nor omitted alternative methods of reconstruction, donor-site morbidity rates, or patient satisfaction and quality-of-life measures. They are simply not within the scope of this clinical article, as is clearly evident.

For alternate autologous reconstruction options, there are many options available, including transverse rectus abdominis musculocutaneous flaps (free and pedicled), latissimus dorsi flaps, gluteal artery perforator flaps, lateral thigh perforator flaps, transverse upper gracilis flaps, profunda artery perforator flaps, and others. The deep inferior epigastric artery perforator flap is by far the most common flap that we offer, and we rarely perform free or pedicled transverse rectus abdominis musculocutaneous and latissimus dorsi flaps. Including all flap types in a study examining a specific subset of patients would be unlikely to have sufficient power to reveal any statistical differences, even in high-volume institutions. Our apologies if the authors found the title to be misleading, but once again, reading the article would quickly reveal the parameters of the study.

There exists a significant volume of literature on donor-site morbidity and satisfaction in autologous breast reconstruction,<sup>2,3</sup> although not specifically in the elderly as far as we know. We believe that these specific questions would require studies designed to specifically address these issues. Anecdotally, our patients rarely complain of bulge or weakness in the acute postoperative period. Furthermore, long-term bulge rates and abdominal weakness specific to age can be skewed because of life expectancy, baseline activity, and core strength differences with advanced age. In addition, age may have a confounding cohort effect on patients' subjective assessment of weakness or satisfaction. To properly assess abdominal weakness requires specialist involvement, such as physical therapy evaluation and objective measurements of strength, and would best be addressed prospectively. As an illustration of the difficulty of demonstrating meaningful data on donor-site morbidity, the American Society of Plastic Surgeons commissioned a multistakeholder workgroup to guide recommendations for autologous reconstruction based on the global literature and could not find significant difference in donor-site morbidity across autologous reconstructive options.<sup>2</sup> Thus, we agree with the authors that, "we cannot draw a conclusion that there is no statistical difference in abdominal complications between the

elderly and nonelderly." That is why our article did not draw any such conclusions.

Regarding our lack of quality-of-life studies, we will respond with the sentence the authors used to lead up to their concern, namely, "the aim of this study was to assess risk factors for complication in autologous breast reconstruction." Surgical quality and cosmetic outcome were not within the well-defined scope of the investigation.

One of the many and rewarding purposes of clinical research is to stimulate discussion and inspire additional investigations. Long-term complication such as donor-site morbidity, health-related quality of life, and patient satisfaction are excellent outcome measures to investigate, and we encourage the authors to direct their passion toward attempting to answer some or all of these questions. We are extremely grateful for the authors' attention to this body of work, and we agree that autologous reconstruction should continue to be offered to patients older than 65 years.

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## DISCLOSURE

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

### REFERENCES

- 1. Torabi R, Stalder MW, Tessler O, et al. Assessing age as a risk factor for complications in autologous breast reconstruction. *Plast Reconstr Surg.* 2018;142:840e–846e.
- Chang EI, Chang EI, Soto-Miranda MA, et al. Comprehensive analysis of donor-site morbidity in abdominally based free flap breast reconstruction. *Plast Reconstr Surg.* 2013;132:1383–1391.
- Atisha DM, Tessiatore KM, Rushing CN, Dayicioglu D, Pusic A, Hwang S. A national snapshot of patient reported outcomes comparing types of abdominal flaps for breast reconstruction. *Plast Reconstr Surg.* 2019;143:677–677.

# The Use of Tumescent Technique in Mastectomy and Related Complications: A Meta-Analysis *Sir*:

read with great interest the recent article by Charalampos Siotos et al.<sup>1</sup> published in the January of 2019 issue of Plastic and Reconstructive Surgery, entitled "The Use of Tumescent Technique in Mastectomy and Related Complications: A Meta-Analysis." This letter aimed to assess its methodologic quality using the 16-item AMSTAR2 (A Measurement Tool to Assess Systematic Reviews 2)<sup>2</sup> appraisal tool, the modified version of the original AMSTAR.<sup>3</sup> According to AMSTAR2, it was obtained that, the study scored 10 items of 16 but lost points from items 2, 9, 10, 12, 13, and 15, which were highlighted in Table 1. Some of them are critical weaknesses that should be taken into account. Moreover, to evaluate clinical significance in studies, which helps clinician's decision-making, prediction interval was proposed in contrast to statistical significance presented by confidence interval. In fact, confidence interval shows accuracy of effect size, whereas prediction interval estimates its dispersion. As some of the significant results were borderline, I suggest that authors calculate prediction interval for evaluating clinical significances<sup>4</sup> because of some borderline confidence interval significance level.

As a conclusion, based on AMSTAR2, this study classified as "low" quality because there existed one critical flaw with some noncritical weaknesses. The review has a critical flaw and may not provide an accurate and comprehensive summary of the available studies that address the question of interest. DOI: 10.1097/PRS.00000000000000029

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### DISCLOSURE

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### REFERENCES

- Siotos C, Aston JW, Euhus DM, Seal SM, Manahan MA, Rosson GD. The use of tumescent technique in mastectomy and related complications: A meta-analysis. *Plast Reconstr Surg.* 2019;143:39–48.
- 2. Shea BJ, Reeves BC, Wells G, et al. AMSTAR 2: A critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ* 2017;358:j4008.
- Shea BJ, Grimshaw JM, Wells GA, et al. Development of AMSTAR: A measurement tool to assess the methodological quality of systematic reviews. *BMC Med Res Methodol*. 2007;7:10.
- 4. Borenstein M, Hedges LV, Higgins JP, Rothstein HR. Introduction to Meta-Analysis. New York: Wiley; 2011.