

Peer Review File

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Reviewer A

I also agree with the overall content.

Please include three papers on our study as references.

Currently, small to moderate breast volume is the most common in Asians, so LD flaps are often applied with appropriate volumes, and it is confirmed that there are no major problems in daily life regarding functional outcomes. Additionally, recently, it is possible to reconstruct breasts with larger volumes through LD flap + implant, and designs such as boomerang LD flap are also being modified and applied.

Yang JD, Huh JS, Min YS, Kim HJ, Park HY, Jung TD. Physical and Functional Ability Recovery Patterns and Quality of Life after Immediate Autologous Latissimus Dorsi Breast Reconstruction: A 1-Year Prospective Observational Study. *Plast Reconstr Surg*. 2015 Dec;136(6):1146-1154. doi: 10.1097/PRS.0000000000001769. PMID: 26267396.

Kim H, Eo P, Ryu JY, Choi KY, Yang JD, Chung HY, Cho BC, Kang B, Lee J, Park HY, Lee JS. Boomerang latissimus dorsi flap in immediate or delayed breast reconstruction. *Gland Surg*. 2023 Jul 31;12(7):894-904. doi: 10.21037/gS-22-664. Epub 2023 Jul 5. PMID: 37727341; PMCID: PMC10506123.

Lee JS, Park E, Lee JH, Lee J, Park HY, Yang JD, Jung TD. Alteration in skeletal posture between breast reconstruction with latissimus dorsi flap and mastectomy: a prospective comparison study. *Gland Surg*. 2021 May;10(5):1587-1597. doi: 10.21037/gS-21-31. PMID: 34164303; PMCID: PMC8184393.

Reply: The authors appreciate the comments of Reviewer A. We have included a reference to the first paper suggested, but the total reference number is limited to 25, which we have reached, so we are unable to add more.

Updated: Item 1 was addressed by adding the requested citations in the appropriate places (References 7 & 10).

Reviewer B

Their work provides valuable insights into the benefits of the microsurgical breast reconstruction, adding to the body of knowledge in the medical field. The manuscript makes a basic review of the benefits and drawbacks of LD vs microsurgical in the autologous reconstruction. Ultimately, the manuscript favours the use of microsurgical flaps over the LD flap. The authors argue for the benefits of microvascular breast reconstruction, based on the well-established fact that reconstruction using the LD flap is associated with frequent morbidity, which is often underestimated (particularly in the short term or in certain patients). This fact, however, is well known among plastic surgeons who perform breast reconstruction, although perhaps less so among many breast surgeons. The manuscript could be justified if it conducted a systematic review of the morbidity associated with both types of reconstruction, although I am unsure if such articles (systematic reviews) are accepted by the publisher.

Reply: The authors thank Reviewer B and agree that a systematic review would be beneficial. This manuscript is intended as an Editorial Commentary, and as such a systematic review is outside the scope of this purpose of this submission. However, the authors reference two separate systematic reviews (#12 Lee et al, #13 Steffensen et al) for further expansion on the topic.

Reviewer C

The study lacks a clear purpose and a description of the methodology. I touch on the various publications, but without knowing how these papers were selected for inclusion in the "study", this summary has no value and the conclusion is not valid.

Reply: The authors appreciate Reviewer C's input. For clarification, this was an invited Editorial Commentary in response to Lofstrand et al study as referenced in Paragraph 5 of the manuscript. Therefore, it was not intended to be a formal study, rather a summation of the article and the associated literature.

Reviewer D

Well written Editorial about functional impairment following Breast Reconstruction comparing the LD flap to the autologous alternatives.

Reply: Thank you for your comments.

Reviewer E

The authors present an interesting editorial commentary on the study by Löstrand et al., analyzing functional outcomes of delayed breast reconstruction with a latissimus dorsi flap. I have one comment:

The authors mention the increasing usage of a second free flap following DIEP flap failure. In these very complex cases, the cause of initial flap failure is pivotal for the decision-making process of whether or not a second free flap is indicated. I think it could be useful to explain in which cases a second free flap is indicated and in which cases an LD flap would be a better option.

Reply: The authors thank Reviewer E for the thoughtful comment. The use of a second free flap after primary microvascular autologous failure is an ongoing area of debate and one which our institution is attempting to parse out in an additional research effort. We hope to publish the results of this study soon.