

Secondary Revisions after Facial Transplantation: Optimizing Functional and Aesthetic Outcomes

Mario A. Aycart M.D., Muayyad Alhefzi M.D., Maximilian Kueckelhaus M.D., Sebastian Fischer M.D.,
Ericka M. Bueno PhD, Bohdan Pomahac M.D.

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INTRODUCTION: Facial transplantation (FT) has emerged as a viable option in treating devastating facial injuries.¹⁻³ The benefits of near normal restoration of multiple functional and aesthetic units in previously non-reconstructable defects have been reported in the literature and media.¹⁻² However, as with autologous free tissue transfer, the need for secondary revisions in FT also exists.³⁻⁴ We aimed to quantify the outcomes of secondary revisions and assess the safety and feasibility of such procedures in our cohort.

METHODS: A retrospective review of our face transplant recipients was performed from April 2009 to March 2015. The patients' histories, pre-operative facial defects and all operative reports were critically reviewed. Functional outcomes and aesthetic appearance were also evaluated in the context of secondary revisions.

RESULTS: A total of five patients have undergone secondary revisions after FT. The time interval from FT to revisional surgery ranged from 1 – 10 months (mean: 5.4 months). The mean number of secondary revisions was 3.2 per patient. The mean follow-up time from latest revision ranged from 5-47 months (mean: 20.4 months). Most interventions have consisted of debulking of soft tissues, SMAS plication and suspension, and local tissue rearrangement for contour abnormalities and excess soft tissue. There were no major infections, hematomas, skin flap loss or necrosis, and most importantly, there were no allograft losses. One patient suffered a post-operative complication after fat grafting in the form of acute rejection that resolved with pulse steroids.

CONCLUSION: Secondary revisions after FT may become standard of care as they are now after conventional free tissue transfer.⁴ Secondary revisions after FT at our institution have addressed both aesthetic and functional aspects and have proven to be safe and introduce minimal complications in the context of maintenance immunosuppression. Our understanding of the effects of rejection and volumetric changes of facial allografts continues to evolve. The natural history and evolution of facial allografts will influence and impact the appropriateness and selection of secondary revisions after FT. As such, patient and procedure selection along with timing are paramount to ensure patient safety and optimal functional and aesthetic outcomes.

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