

The Supraclavicular Artery Island Flap (SCAIF) as an Ideal Option in Head & Neck Reconstruction

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Abstract

Background: At our institution, the Supraclavicular Artery Island Flap (SCAIF) has become a reliable, first-choice option for fasciocutaneous coverage of complex Head & Neck defects. No studies have compared the outcomes of reconstructions performed with SCAIFs and free flaps directly.¹⁻⁴ The aim of our study was to compare outcomes between SCAIFs and free fasciocutaneous flaps (FFF) via a single surgeon's experience at a County Hospital.

Methods: Retrospective review of consecutive H&N reconstructions using fasciocutaneous flaps over five years. Reconstructions were divided into two groups: SCAIFs and FFFs. Patient demographics, surgical parameters and outcomes were compared among the two groups.

Results: Thirty-four fasciocutaneous flaps were used in H&N reconstruction (18 SCAIFs and 16 FFFs). There was no difference in patient demographics between the 2 groups or in distribution of defects. There was no difference in follow-up between groups (SCAIF 9.2 months vs. FFF 15.13 months, $p = 0.65$). SCAIF flaps were larger than free flaps (164.6 ± 60 vs. 111 ± 68 cm² $p < 0.05$), and had shorter operative times (588 ± 131 vs. 816 ± 149 minutes $p < 0.05$). 33% of SCAIFs required skin grafting of the donor site versus 75% of the FFFs ($p < 0.05$). ICU length of stay was shorter for the SCAIF group compared with the FFF group (1.8 vs. 5.6 days, $p < 0.05$) but there was no difference in total hospital stay (16.4 vs. 18.5 days, $p = 0.58$). Overall morbidity was not statistically different (SCAIF 39% vs. FFF 31%, NS).

Conclusion: The SCAIF flap is a technically simpler and equally reliable fasciocutaneous flap for H&N reconstruction with comparable outcomes, shorter operative time, less ICU length of stay and no need for postoperative monitoring when compared to using free fasciocutaneous flaps and should be considered as a first-choice reconstructive option.

References:

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