Materials and Methods: A systematic review of pubmed, EMBASE, Cochrane library and world of science was conducted aiming at articles comparing outcomes of free versus pedicled flaps in lower limb reconstruction. Pooled analysis was conducted using the Mantel and Haenszel method with random effect analysis. Differences in outcomes were expressed as risk ratio with a 95% confidence interval.

Results: Ten retrospective studies met the selection criteria. While flap necrosis rate did not differ significantly between techniques (RR 1.35, 95% CI 0.76-2.39, $p = 0.31$), partial flap necrosis rate was significantly lower in free flaps (RR 0.45, 95%CI 0.22-0.91, $p = 0.03$). Overall complication rate (RR 0.83, 95% CI 0.64-1.07, $p = 0.16$), and revision surgery rate (RR 1.38, 95% CI 0.55-3.50, $p = 0.49$) did not differ significantly between free and pedicled flaps. No significant difference was found in high aesthetic satisfaction rate (RR 1.76, 95% CI 0.57-5.41, $p = 0.32$) and post-operative infection rate (RR 0.85, 95%CI 0.55-1.33, $p = 0.48$).

Conclusion: Despite important variability in the choice of flaps and outcomes reported among studies, free and pedicled flaps appear to be reliable surgical strategies in lower limb reconstruction with similar surgical outcomes.

THE FISHER SUBUNIT ANATOMICAL APPROACH FOR CLEFT LIP REVISIONS

Jack D. Sudduth, Laura I. Galarza, Laura S. Humphries, Ian C. Hoppe

Email: sudduth.jack@gmail.com

Introduction: Many techniques exist to reapproximate a cleft lip but can leave unsatisfactory results with non-anatomic scars and a short upper lip. Because of this, the need for cleft lip revision often arises years after the initial repair. Many revisions focus on adjacent tissue transfers and realignment of landmarks, but in the senior authors' experience, entirely re-creating the defect and utilizing the Fisher repair for revision has led to aesthetically pleasing results and less noticeable scars.

Materials and Methods: A database was collected that included all cleft lip revisions performed at a large, comprehensive children's hospital from October 2018 to July 2021. Inclusion criteria included any cleft patient with a cleft lip revision performed by two craniofacial surgeons regardless of previous repair history. Data collected included sex, characteristics of the cleft lip (laterality and complete or incomplete defect), age at initial repair, type of initial repair, any previous revisions, age at index revision, type of revision with any additional tissue rearrangement, and any nose repair.

Results: Sixty-five patients were included in the study for analysis. The type of initial repair was known in sixty-four cases (98%), and fifty-four were Millard repairs (83%). Twenty-two patients (33%) had a previous revision prior to their index revision. The average revision age was 9.6 years. Sixty patients (92%) underwent the Fisher repair technique for their index revision and forty-six patients (70%) underwent some form of nasal revision. In follow-up, all patients demonstrated an improvement in lip aesthetics.

Conclusion: The necessity for cleft lip revision derives from suboptimal results of initial treatment. Here we have demonstrated a large subset of patients that have undergone cleft lip revision using the Fisher technique. In the senior surgeons' experience, the Fisher repair technique in the setting of cleft lip revision is an ideal way to address the shortcomings of historical repair techniques.

MENSURATION AND MITIGATION OF GENDER-BASED DISPARITY IN AESTHETIC ACADEMIA: HOW CAN WE DO BETTER?

Suvethavarshini Ketheeswaran, Brea Wiley, Kristen Broderick

Email: skethee1@jhmi.edu

Introduction: Females have long been underrepresented in all surgical disciplines, particularly plastic surgery. In this study, we sought to characterize the state of gender parity in aesthetic surgery academia by comparing gender authorship ratios in published literature as well as a comparison of the current number of practicing female and male plastic surgeons.