

19 - Title: Assessing postoperative morbidity and mortality after soft tissue and bony free flap reconstruction of maxillectomy defects

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Background:

Postoperative outcomes based on type of free flap reconstruction of the maxilla remain inadequately explored. We aim to investigate differences in postoperative complications in patients undergoing bony tissue free flap reconstruction and those undergoing soft tissue free flap reconstruction.

Methods/Research Design.

All patients undergoing maxillectomy with free tissue reconstruction were identified using CPT codes on the TriNetX Research (with NLP) Network. Soft tissue and bony free flap cohorts were designated. After propensity matching, postoperative outcomes between the cohorts were compared using measures of association.

Results (or Preliminary Results, as applicable for a project in progress):

After propensity matching, there were 493 patients in each cohort. Patients undergoing bony reconstruction were more likely to develop surgical site infection (aOR=2.30, 1.11-4.78), wound dehiscence (aOR=1.46, 1.10-1.82), urinary tract infection (aOR=1.75, 1.07-2.43), require blood transfusion (aOR=1.39, 1.15-1.68), develop post-operative anemia (aOR=1.28, 1.03-1.52), develop flap complication (aOR=1.70, 1.01-2.40), and require reoperation (aOR=2.12, 1.23-3.00). Conversely, the bony reconstruction cohort was less likely to suffer from early post-operative mortality (aOR=0.51, 0.21-0.81) than the soft tissue cohort.

Conclusion (or Preliminary Conclusion, as applicable for a project in progress):

Our findings demonstrate that patients undergoing bony reconstruction after maxillectomy were more likely to develop early post-operative complications than patients undergoing soft tissue reconstruction. This highlights the importance of thoughtful selection of flap type when planning for maxillectomy.