American, Hispanic, and other non-Caucasians were all less likely to develop infections compared with Caucasian patients (OR = 0.936, 0.890, 0.827, respectively).

Conclusions: After accounting for race, gender, and ethnicity, it was determined that anticoagulation was negatively correlated with risk of oral infection compared with patients not undergoing anticoagulation therapy and had dental extractions. Limitations include lack of information regarding the nature of the oral infection with regard to granularity, restrictions on inpatient data, lack of information on the specificity of the anticoagulant, and unclear timeline between dental extractions and development of infection. Future studies should investigate this association in a prospective manner to establish a more definitive relationship.

FACTORS AFFECTING SUCCESS OF RECONSTRUCTION OF EXTREMITY INJURIES WITH MICROVASCULAR FREE FLAPS

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Objective: One of the most challenging aspects of restoring form and function to an extremity affected by a traumatic event is repairing the extensive soft tissue defect. Some methods of repair are use of microvascular free flaps, pedicled perforator flaps, and skin grafting.[1] The choice of reconstruction depends on many factors, including location/size, patient's comorbidities, and donor site limitations. The aim of this study was to review extremity soft tissue reconstructions that were performed by pedicled and free flap methods and to determine if any factors played a role in the outcome of treatment.

Methods: With institutional review board approval, a retrospective chart review was performed for cases in the Department of Oral and Maxillofacial Surgery involving extremity reconstruction procedures in the years 2010−2015. A data set was created in REDCap to record patient demographic characteristics, social habits, cause/site of injury, procedures performed, postoperative/post-discharge complications, and healing outcome. Statistical analysis was performed by using SPSS, SAS, and Excel software. A comparative analysis, by using Fisher's exact test, Pearson's χ^2 test, and independent *t* tests, was performed.

Results: We identified 71 patients, 20 of whom were excluded because of repetition and/or other reconstruction. Of the 51 patients identified, 38 (74.5%) were males and 13 (25.5%) were females (mean age 41 years). Accident-related injuries included motorcycle, 13 (26.5%); car, 14 (28.6%); falls, 8 (15.7%); pedestrian−automobile collision, 8 (15.7%); and other causes. Lower extremities were affected in 49 of 51 cases. Reconstructions included radial forearm free flap (17), anterior lateral thigh flap (7), latissimus dorsi free flap (3), gastrocnemius pedicled flap (9), and other rotational flaps (15). Of 51 patients, 15 required readmissions—9 for wound dehiscence and 11 for infection (6 had both). Of the patients with poor wound care, 60% developed an infection, 72% of whom required readmission. No significant correlation between patient comorbidities and the rate of flap failure/readmission was noted.

Conclusions: Extensive extremity injuries caused by traumatic events often lead to soft tissue defects that require tissue rearrangement/free tissue transfer for repair. In evaluating patients with free flap/rotational flap reconstruction of these defects, we determined that readmissions mainly resulted from infection, most of which were correlated with poor wound care. To further address our hypothesis, we plan to review patients from 2016 to 2019 to evaluate if any other factors (i.e., orthopedic hardware) may play a role in the rate of infections.