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**PURPOSE:** Racial disparities in postoperative complications are widely observed in various surgical specialties. The influence of race is particularly evident and often described in current vascular, orthopedic, and spine surgery literature. Although disparities in access to plastic surgery are well described, the effect of race on plastic surgical outcomes remains largely undefined. This study aims to clarify the influence of race on reconstructive breast surgery outcomes.

**METHODS:** The NSQIP was queried for all female patients undergoing reconstructive breast surgery between 2008 and 2016. Surgical outcomes of patients of white race were compared to those of African-American, Asian, or other races (composite of American Indian, Alaska Native, Native Hawaiian or Pacific Islander). Logistic regression was performed to control for variations between all groups with *a priori* selected variables ‘Age’, ‘BMI’, ‘COPD’, ‘Hypertension’, ‘Diabetes’, ‘Smoking status’, ‘Steroid use’, ‘Operating Time’, and ‘Type of procedure’. Racial differences in outcomes were further stratified and analyzed within four different types of breast reconstruction: delayed or immediate autologous breast reconstruction and delayed or immediate prosthesis-based breast reconstruction.

**RESULTS:** In total, 51,362 patients were included in the analysis of which 43,864 (85.4%) were white, 5,135 African-American (10.0%), 2,057 Asian (4.0%), and 332 of other races (0.6%). Patients of African-American race had larger body mass indices (31.3 ± 7.0 versus 27.6 ± 6.3, p-value <0.001) in addition to higher rates of diabetes (12.3% vs 4.6%, p-value <0.001) and hypertension (44.7% versus 23.4%, p-value <0.001) when compared to white patients. Both univariate and multivariate analysis showed no differences in overall complication rate. When modeling for overall complication rate, the odds ratios (OR) of being of a minority race were not significantly different compared to being white (OR 0.980, 95% CI 0.877–1.095; p-value =0.720, OR 1.035, 95% CI 0.848–1.263; p-value =0.734, OR 0.674, 95% CI 0.395–1.149; p-value =0.147 for African-American, Asian, and other respectively). Moreover, when sub-stratified into different types of reconstruction, no differences were observed.

**CONCLUSION:** Among the four types of reconstructive procedures, differences in surgical outcomes do not seem to be based on race. Racial disparities in outcomes appear to be less apparent in reconstructive breast surgery compared to the current literature within other surgical specialties.

**QS5**

**Adding Depth to Cephalometric Analysis: Comparing 2D and 3D Angular Cephalometric Measurements**

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**PURPOSE:** Lateral cephalometric radiographs (LCR) have been the standard tool used for cephalometric analysis in craniofacial surgery. Over the past decade, a 3D revolution in cephalometric analysis and surgical planning has been underway. To date, research has not validated whether cephalometric measurements taken from 2D and 3D data sources are equivalent and interchangeable.

**METHODS:** A total of 62 head CT scans (36 females, 26 males) with an average age of 63±20 years were selected. Twelve cephalometric angular measurements were taken from 3D reconstructed skulls using the software package Mimics 19.0 (Materialize; Leuven, Belgium). These same facial angles were measured from 2D lateral cephalograms reconstructed from the original CT scans using Dolphin 11.9. Measurements achieved with both techniques were compared for agreement using a paired t-test. Intra-class correlation coefficient assessment was used to determine inter-rater reliability. Statistical significance was set at p<0.05.

**RESULTS:** Five of the 12 angular measurements (SNA, SNB, MP-FH, U1-SN, and U1-L1) demonstrated statistically significant differences (p<0.05) between the 2D and 3D analyses. All of these differences were less than the standard deviations for the respective measure.

**CONCLUSION:** The differences between angular cephalometric values obtained from 2D LCRs and 3D CT reconstructions are small. This supports the practices of using 2D and 3D cephalometric data interchangeably in most applications. Clinicians must be selective in which measures they employ to maximize accuracy and care must be taken when measuring dental inclination with lateral cephalograms.