

Introduction

- Racial disparities are increasingly recognized problems in surgery.
- Disparities in socioeconomic burden, comorbid conditions, and sociocultural effects have been proposed to describe worse outcomes in racial minority patients.^{1,2}
- Studies investigating peri-operative outcomes after plastic surgery in minority patients are limited compared to other surgical fields.

Objective

- To determine post-operative outcomes in racial minorities after common procedures in plastic and reconstructive surgery.

Methods

- ACS-NSQIP database, which collects nationwide data on 135 variables including preoperative risk factors and 30-day post operative mortality and morbidity.
- Current Procedural Terminology (CPT) codes utilized to collect common plastic surgery procedures between 2017 and 2020.
- Four cohorts: *reduction mammoplasty, breast reconstruction, abdominal wall reconstruction, and all surgeries.*
- Patients categorized into reported race/ethnicity: *Non-Hispanic White, Black, Hispanic/Latino, and Asian.*
- Univariate and multivariate logistic regression (controlling for BMI, ASA, smoking status, operative length, and past medical history) utilized.

Results

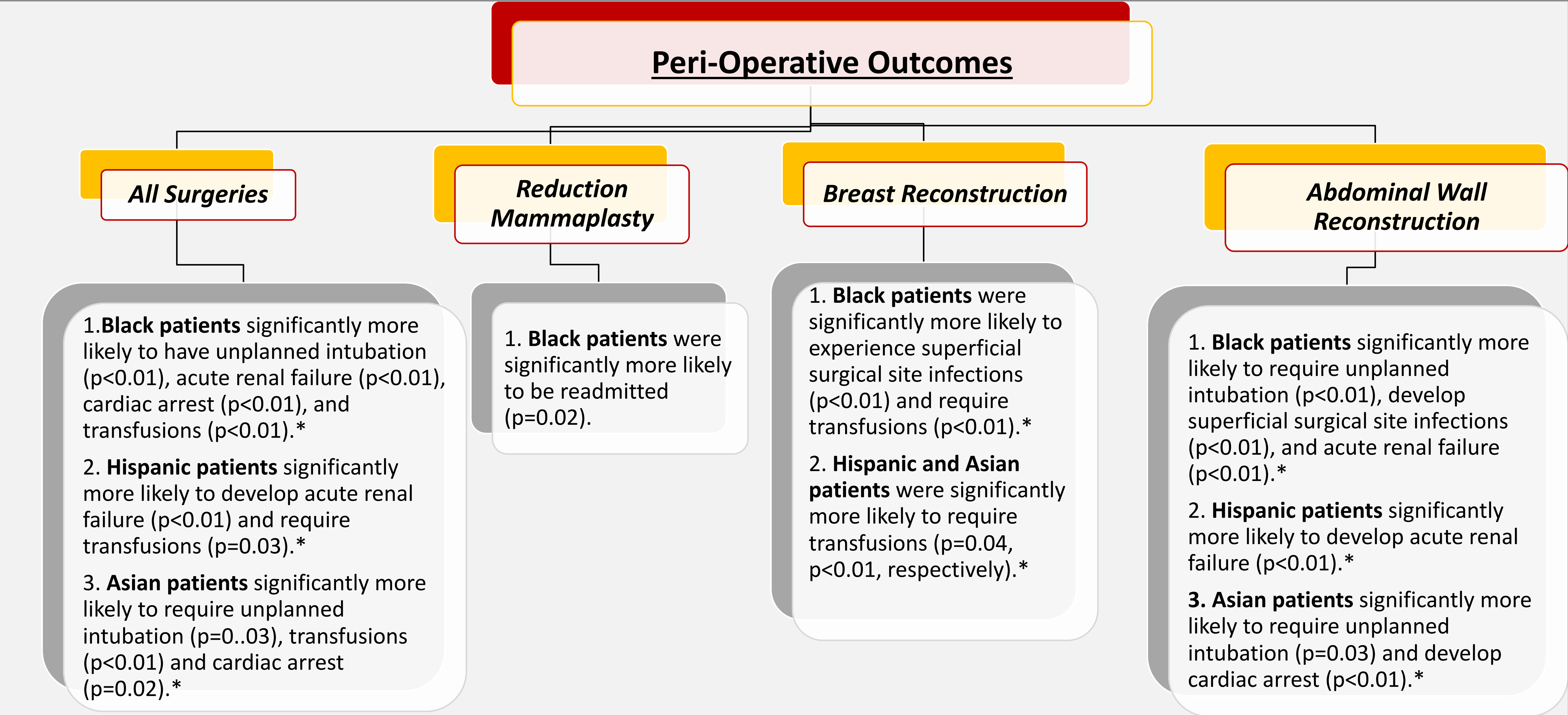
Figure 1. Included CPT Codes

Reduction Mammoplasty (N=15,574)	Breast Reconstruction (N=28,025)	Abdominal Wall Reconstruction (N=94,075)
19318	19361, 19364, 19367, 19368, 19469, 19340, 19357, 19366	49560, 49561, 49565, 49653, 49654, 49656

Table 2. Basic Patient Demographics

Characteristics	N=137,674
Age, mean years (SD)	54.0 (14.6)
Sex, n (%)	
Male	43,758 (31.8%)
Female	93,896 (68.2%)
Race/ethnicity, n (%)	
Non-Hispanic, White	100,727 (73.2%)
Black	19,869 (14.4%)
Hispanic	14,295 (10.4%)
Asian	2,783 (2.0%)

Figure 2. Peri-Operative Outcomes in Minority Patients



In all peri-operative outcome analysis, white patients were used as reference population.

*: After multivariate analysis.

Discussion

- Several significant post-operative adverse events experienced by minority patients, even after controlling for covariates.**
- Findings are **consistent** with investigation in other surgical fields.
 - Ex. Black patients more likely to require re-operation in abdominal wall reconstruction and aortic/mitral valve replacement surgery.³
- Factors unique to minority populations may not be captured in the NSQIP database.
 - Ex. Socioeconomic status, cultural distrust in healthcare.⁴
- Study limitations: **Utilization of single database** (30-day span, lack of specific plastic surgery outcomes).

Future Directions

- Future studies should prospectively investigate **determinants of health** impacting surgical outcomes in minorities.
- Outcomes should be followed for **greater than 30 days** to expand our current understanding of disparities in minorities.
- Further research required to identify **potential targets of intervention** to improve outcomes in minority populations undergoing plastic surgery.

References

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2. Manuel J. I. (2018). Racial/Ethnic and Gender Disparities in Health Care Use and Access. *Health services research*, 53(3), 1407–1429. <https://doi.org/10.1111/1475-6773.12705>

3. Taylor, N. E., O'Brien, S., Edwards, F. H., Peterson, E. D., & Bridges, C. R. (2005). Relationship between race and mortality and morbidity after valve replacement surgery. *Circulation*, 111(10), 1305–1312. <https://doi.org/10.1161/01.CIR.000157737.92938.D8>

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