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The Effect of Socioeconomic Status on Patient Outcomes Following Rotator Cuff Repair at Two Hospital Campuses

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The Effect of Socioeconomic Status on Patient Outcomes Following Rotator Cuff Repair at Two Hospital Campuses

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INTRODUCTION: To examine the relationship between demographics, socioeconomic status (SES), and patient outcomes after rotator cuff repair (RCR).

METHODS: A retrospective review identified 7564 patients who underwent RCR between 2017 and 2021. Patients were stratified into two groups, urban(U) or suburban(S), based on which campus they underwent surgery. Demographic information, medical comorbidities, SES and other preoperative risk factors were compared. Pre- and postoperative functional outcomes at each location were analyzed. Categorical variables were reported as counts and percentages while continuous variables were reported as means and standard deviations. Chi-square tests were used to compare categorical variables while independent sample t-tests were used to compare continuous variables. Functional scores were analyzed using the Pearson Correlation. Statistical significance was set at <0.05.

RESULTS: 7564 cases were included. 5932(78.4%) were performed at S, and 1632(21.6%) were performed at U. Significant demographic differences exist in gender, race, marital status and employment(p <0.001). Socioeconomic status(SES), education(p=0.023) and poverty level(p<0.001), also varied. There was a difference in comorbid index between locations(p<0.001). More patients smoked tobacco at U(p< 0.001). Patients at U showed worse postoperative patient-reported outcomes for pain and upper-extremity function(p=0.01,p<0.001) and had longer postoperative stays(p=0.19).

DISCUSSION: Although there was a size discrepancy between patient populations, significant differences in patient-reported outcomes for RCR may be attributable to several of these factors and should be addressed in pre-operative planning.

SIGNIFICANCE: It is imperative to account for all patient risk factors preoperatively to limit discrepancies in outcomes and optimize results for all patients.

ACKNOWLEDGEMENTS: Dr. Stephanie Muh, the entire Muh lab group at Henry Ford Hospital, and Richard Krajenta with the Ford analytics team.

IMAGES AND TABLES:

![Fig. 1](image-url)

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<th>Hospital location</th>
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Table 1