Sociodemographic and Clinical Variables Impacting Procedure Choice in Breast Reconstruction

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INTRODUCTION: Many options are available to women seeking post-mastectomy breast reconstruction. To promote patient-centered care tailored to women's individual needs and preferences, it is important to understand the impact of sociodemographic factors on patients' procedure choices. In this study, we analyzed the effects of these variables on reconstructive procedure choices.

METHODS: Women undergoing post-mastectomy breast reconstruction were recruited as part of the Mastectomy Reconstruction Outcomes Consortium (MROC) Study, a multicenter, prospective cohort study. For this analysis, the effects of multiple sociodemographic and clinical variables on procedure choice were evaluated. Procedure types were grouped into two cohorts: tissue expander-implant/direct-to-implant and abdominally-based flap reconstructions. Due to the small number of prophylactic mastectomies/reconstructions, the analysis was limited to women undergoing reconstruction following mastectomies for breast cancer. Adjusted odds ratios of abdominally-based flaps were calculated from logistic regression with patient sociodemographic and clinical factors as the independent variables.

RESULTS: There were 2,203 women included in this analysis, with 1,557 receiving implant-based and 646 undergoing autologous tissue procedures. Compared with women <40 years of age, women 40 to 49 and 50 to 59 years old were significantly more likely to undergo an abdominally-based flap (Table 1). Women working or attending school full-time were more likely to receive an autologous procedure than those working part-time or volunteering. Although not significant, statistical trends were noted for the effects of race and ethnicity: compared to white women, black women were less likely to undergo abdominally-based flaps, and Hispanic women were more likely to receive abdominal flaps than non-Hispanic women. Patients undergoing unilateral or delayed procedures were more likely to receive an abdominal flap compared to those undergoing bilateral or immediate procedures, respectively. Those with BMIs of ≥25 were more likely to undergo autologous reconstruction than women with BMIs <25.

CONCLUSION: The results of this prospective cohort study indicate that patient sociodemographic and clinical variables impact the reconstructive option chosen. Given the changing trends in mastectomy and reconstruction over the last 15 years, it is important to better understand the patient factors that influence surgical decision-making in socially, ethnically, and economically diverse populations. As we move forward into a new era of patient-centered care, providing tailored treatment options to reconstruction patients will likely lead to higher satisfaction and better outcomes for those we serve.

FIGURE LEGEND:
Table 1. Factors associated with undergoing an abdominally-based flap versus tissue expander-implant/direct-to-implant among women undergoing mastectomy for current or previous breast cancer. Reference group is women undergoing tissue expander-implant/direct-to-implant. OR, odds ratio; CI, confidence interval; BMI, body mass index.
*American Indians, Asians, Hawaiians, and Pacific Islanders
‡Includes homemakers and women seeking employment
¥Includes contralateral prophylactic mastectomy and reconstruction