Surgical Morbidity and Mortality among American Indian and Alaska Native Veterans: A Comparative Analysis

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Abstract

BACKGROUND: Few studies have examined surgical risk factors and outcomes in American Indians and Alaska Natives (AI/ANs). My colleagues and I sought to determine if prevalence of preoperative risk factors for morbidity and mortality differed between male AI/AN and Caucasian surgical patients, and to determine if AI/ANs had an increased risk of surgical morbidity or mortality.

STUDY DESIGN: We obtained data from the Veterans Affairs National Surgical Quality Improvement Program on major, noncardiac, surgical procedures performed between 1991 and 2002 for all AI/AN men (n = 2,155) and a random sample of Caucasian men (n = 2,264), matched by facility. Chi-square and t-test analyses were used to assess differences in preoperative risk factors between the two groups. Logistic regression was used to determine whether AI/AN race was independently associated with 30-day morbidity (defined as 1 or more of 21 postoperative complications) or 30-day all cause mortality after adjustment for major risk factors.

RESULTS: Prevalence of major preoperative risk factors for morbidity and mortality often differed between the groups. Compared with Caucasians, AI/AN race did not predict morbidity (adjusted odds ratio, 0.92; 95% CI, 0.75_1.13), but AI/ANs were at higher risk for 30-day all cause postoperative mortality (adjusted odds ratio, 1.56; 95% CI, 1.04_2.35).

CONCLUSIONS: Our results add postoperative mortality to health disparities experienced by AI/ANs. Future research should be conducted to identify other factors that contribute to this disparity.