Abstract

**BACKGROUND:** American Indian/Alaska Native (AI/ANs) male veterans have considerably higher postoperative mortality rates than their Caucasian counterparts, but similar postoperative morbidity rates even after adjusting for major preoperative risk factors. This study seeks to explain the discrepancy in morbidity and mortality.

**STUDY DESIGN:** We obtained data from the Veterans Affairs National Surgical Quality Improvement Program on major, noncardiac, surgical procedures performed from 1991 to 2002 for all AI/AN men (n = 2,155), and a random sample of Caucasian men (n = 2,264), matched by site. We compared the number and types of postoperative complications and mortality rates for those patients in whom complications developed. We also examined complication and mortality rates by whether they occurred after hospital discharge, or by specific type of surgical procedure. Preoperative risk factors were assessed in patients who died. Chi-square or Fisher’s exact tests were used for all comparisons.

**RESULTS:** AI/ANs and Caucasians did not differ by number of complications but Caucasian patients had considerably higher rates for three specific complications. There was no difference in deaths after discharge or in mortality rates after specific surgical procedures. The groups differed considerably in the types of procedures performed. Among patients who died, three preoperative risk factors, ie, hemiplegia, diabetes, and wound infection, occurred more frequently among AI/AN than Caucasian veterans.

**CONCLUSIONS:** We cannot fully explain higher postoperative mortality rates experienced by AI/AN relative to Caucasian veterans after examining complications, types of procedures, and other relevant factors. AI/ANs with certain preoperative risk factors can be vulnerable to 30-day postoperative mortality and benefit from closer postoperative surveillance.