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ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

Surgery Decreases Long-term Mortality, Morbidity, and Health Care Use in Morbidly Obese Patients.

Original Articles and Discussions of the American Surgical Association

Annals of Surgery. 240(3):416-424, September 2004.
Christou, Nicolas V. MD, PhD; Sampalis, John S. PhD; Liberman, Moishe MD; Look, Didier MD; Auger, Stephane BSc; McLean, Alexander P.H. MD; MacLean, Lloyd D. MD, PhD

Abstract:
Objective: This study tested the hypothesis that weight-reduction (bariatric) surgery reduces long-term mortality in morbidly obese patients.

Background: Obesity is a significant cause of morbidity and mortality. The impact of surgically induced, long-term weight loss on this mortality is unknown.

Methods: We used an observational 2-cohort study. The treatment cohort (n = 1035) included patients having undergone bariatric surgery at the McGill University Health Centre between 1986 and 2002. The control group (n = 5746) included age- and gender-matched severely obese patients who had not undergone weight-reduction surgery identified from the Quebec provincial health insurance database. Subjects with medical conditions (other then morbid obesity) at cohort-inception into the study were excluded. The cohorts were followed for a maximum of 5 years from inception.

Results: The cohorts were well matched for age, gender, and duration of follow-up. Bariatric surgery resulted in significant reduction in mean percent excess weight loss (67.1%, $P < 0.001$). Bariatric surgery patients had significant risk reductions for developing cardiovascular, cancer, endocrine, infectious, psychiatric, and mental disorders compared with controls, with the exception of hematologic (no difference) and digestive diseases (increased rates in the bariatric cohort). The mortality rate in the bariatric surgery cohort was 0.68% compared with 6.17% in controls (relative risk 0.11, 95% confidence interval 0.04-0.27), which translates to a reduction in the relative risk of death by 89%.

Conclusions: This study shows that weight-loss surgery significantly decreases overall mortality as well as the development of new health-related conditions in morbidly obese patients.