Medical Xpress

'Superobesity,' chronic disease burden associated with risk of death following bariatric surgery

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Veterans classified as superobese and those with a higher chronic disease burden appear more likely to die within a year of having bariatric surgery, according to a report in the October issue of *Archives of Surgery*.

Currently, 165,000 veterans who use Veterans Affairs (VA) medical facilities have class III obesity, defined as a body mass index (BMI) of 40 or greater, according to background information in the article. Evidence suggests bariatric surgery is one of the few interventions that can help morbidly obese individuals lose enough weight to significantly improve their health and quality of life. The risk of death associated with bariatric surgery is thought to be low, but most previous studies have involved younger women rather than the older male population that typically uses VA facilities.

The number of bariatric procedures performed in approved VA medical facilities more than tripled between 2000 and 2006; however, the surgery is being performed on only approximately 0.1 percent of all veterans who meet BMI criteria. "Whether the volume of the VA bariatric surgery program should be expanded in the coming years largely depends on the impact such operations have on long-term health outcomes," the authors write.

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Seattle, and colleagues examined patient factors associated with the risk of death among 856 veterans who underwent bariatric surgery in any of 12 VA bariatric centers from 2000 to 2006. The patients had an average BMI of 48.7 and an average age of 54 years; 73 percent were men. Dr. Arterburn also has a joint appointment at University of Washington, and his coauthors are at the University of Texas, Duke University, the University of Colorado and Veterans Affairs.

Overall, a total of 54 patients (6.3 percent) died during the follow-up period; 1.3 percent of the patients died 30 days after surgery, 2.1 percent died 90 days after surgery and 3.4 percent had died after one year. In statistical models performed by the researchers, the patients who were classified as superobese (having a BMI of 50 or higher; 36 percent of the sample) and those with a higher score on a measure of costs related to co-occurring diseases (8 percent of the sample) had an increased risk of death. Superobese patients (who accounted for 30 deaths) had 30-day, 90-day and one-year death rates of 2.0 percent, 3.6 percent and 5.2 percent, whereas those with a higher comorbidity cost score had rates of 1.5 percent, 5.8 percent and 10.1 percent.

Several possible explanations exist for the increased risk of death among the superobese, the authors note. Bariatric procedures are technically more difficult in these patients because of their abdominal fat; they may be at greater risk for wound complications and blood clotting; and they are likely to have more obesity-related illnesses.

"The results of this study should inform discussions with patients with regard to the potential risks and benefits of bariatric surgery," the authors conclude. "These findings also suggest that the risks of bariatric surgery in patients with significant comorbidities, such as congestive heart failure, complicated diabetes and chronic obstructive pulmonary disease, should be carefully weighed against potential benefits in older male patients and those with superobesity."

More information: Arch Surg. 2009;144[10]:914-920.

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