Pain and physical function improve after weight-loss surgery
5 April 2016

Among a group of patients with severe obesity who underwent bariatric surgery, a large percentage experienced improvement in pain, physical function, and walking capacity over 3 years, according to a study appearing in the April 5 issue of *JAMA*.

Severe obesity is associated with significant joint pain and impaired physical function (ability to bend, lift, carry, push, and walk). Excess weight can lead to joint damage and pain, resulting in activity restriction and walking limitations. Bariatric surgery is effective at achieving and maintaining weight loss, although the variability and durability of improvements in pain and physical function following Roux-en-Y gastric bypass (RYGB) or laparoscopic adjustable gastric banding (LAGB) are not well described.

Wendy C. King, Ph.D., of the University of Pittsburgh, and colleagues examined changes in pain and physical function in the first 3 years following *bariatric surgery*, and factors associated with improvement, among adults with *severe obesity*. Research assessments were conducted prior to surgery and annually thereafter. The study was conducted at 10 hospitals.

Of 2,458 participants, 2,221 completed baseline and follow-up assessments; 79 percent were women; median age was 47 years; median body mass index (BMI) was 46; 70 percent underwent RYGB; 25 percent underwent LAGB. Among the primary findings through 3 years of follow-up: approximately 50 percent to 70 percent of adults experienced clinically significant improvements in perceived bodily pain and physical function and in objectively measured walking capacity; and approximately three-fourths of participants with severe knee and hip pain or disability at baseline experienced improvements in osteoarthritis symptoms.

The percentage of patients with improvement in pain and physical function decreased between year 1 and year 3 following surgery.

Younger age, male sex, higher income, lower BMI, and fewer depressive symptoms presurgery; no diabetes and no venous edema (swelling of the legs) with ulcerations postsurgery (either no history or remission); and presurgery-to-post surgery reductions in weight and depressive symptoms were associated with presurgery-to-post surgery improvements in multiple outcomes at years 1, 2, and 3.

The study's "large geographically diverse sample, inclusion of multiple validated measures of pain and physical function, longitudinal design, and follow-up through 3 years make it one of the most informative studies of pain and function following RYGB and LAGB to date," the authors write.

**More information:** *JAMA*, DOI: 10.1001/jama.2016.3010

Provided by The JAMA Network Journals