Life Expectancy after Bariatric Surgery — the Swedish Obese Subjects Study

TO THE EDITOR: Carlsson et al. (Oct. 15 issue)[1] provide an update on outcomes from the Swedish Obese Subjects (SOS) study,[2] along with a calculation of life expectancy after bariatric surgery. They report that the effect of bariatric surgery was similar among patients in various age groups. However, the authors do not acknowledge other studies of similar duration.[3] In our meta-analysis involving 607,643 persons,[4] the effect of bariatric surgery appears to be different in various age groups (i.e., greater in persons ≥44 years of age than in those <44 years of age); these results were confirmed in a study involving 27,358 persons.[5]

There may be several reasons for such differences among studies. First, the SOS study excluded persons younger than 37 years of age. Second, it included matched controls before the actual surgery, and between-group differences in body weight and body composition were reported. Third, the SOS study differed from most other studies in that it involved the use of three bariatric techniques rather than a single bariatric procedure.[4,5] Can Carlsson et al. discuss the differences between the SOS study and other large studies?[4,5]

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TO THE EDITOR: Carlsson et al. report that in patients with obesity, bariatric surgery was associated with a longer life expectancy than usual care. The study is important given the dramatic effect of obesity on life expectancy.[1] However, the authors do not mention that the procedures used (especially gastric bypass) could be associated with renal complications, including nephrolithiasis and oxalate nephropathy.[2,3]

Gastric bypass induces fat malabsorption and increases fat delivery to the colon, where free fatty acids bind calcium, increasing calcium saponification, and, as a result, increasing levels of free luminal oxalate. This unbound oxalate load is then absorbed by the bowel and is eventually filtered by the kidneys. This phenomenon can lead to kidney stones and oxalate deposition within kidney tissue, which may lead to acute kidney injury[4] or progressive chronic kidney disease that sometimes leads to kidney failure.

For these reasons, in our center, sleeve gastrectomy is preferred in patients with chronic kidney disease for whom bariatric surgery is warranted, especially in candidates for kidney transplantation. Among such patients, there is a risk of recurrent oxalosis in the allograft.[4]

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THE AUTHORS REPLY: Tagliabue et al. comment on our article about life expectancy in the SOS study as compared with that in their own cohort.[1] In our article, we referred to a meta-analysis[2] that included the cohort followed by Pontiroli et al. Although Pontiroli et al. have updated their analyses of mortality,[1] we think that the meta-analysis provides the information needed to support our statement that bariatric surgery is associated with reduced long-term (≥2 years) all-cause mortality, and we did not include the new reference for space reasons. Tagliabue et al. also mention two retrospective studies with a median follow-up of up to 9 years that showed greater effects of bariatric surgery in older patients. We did not observe any difference between younger and older patients with respect to the effect of bariatric surgery on life expectancy. Our findings might be due to the limited age range in the SOS study. However, we speculated that the effect in absolute terms as measured by life expectancy might be even better if surgery were performed earlier in life. An analysis of the SOS study is ongoing to estimate life expectancy according to the number of deaths in the younger age groups.

Tagliabue et al. note that the patients in the SOS study underwent various types of surgery, in contrast to their cohort, which included only patients who had undergone gastric banding. In general, we have not observed differences among the surgical methods used in the SOS study with respect to positive effects, but we have observed increased risks of alcohol problems[3] and fall-related accidents[4] after gastric bypass. The influence of various surgical methods on life expectancy therefore warrants exploration.

Gillion et al. suggest that bariatric surgery increases the risks of kidney stones and oxalate deposition, which may lead to kidney disease and kidney failure. In our study, kidney disease was an uncommon cause of death. Bariatric surgery is associated with many health benefits as well as a number of complications. In order to weigh the pros and cons of surgical treatment of obesity, the long-term evaluation of mortality is important. The results of the SOS study indicate that the benefit appears to outweigh the harm with the surgical methods used.

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Since publication of their article, the authors report no further potential conflict of interest.

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Single or Dual Antiplatelet Treatment after TAVI

TO THE EDITOR: Brouwer et al. (Oct. 8 issue)[1] report that aspirin alone leads to a lower incidence of bleeding than in combination with clopidogrel after transcatheter aortic-valve implantation (TAVI). Although only 690 patients underwent randomization in a trial conducted over 5 years at 17 sites, no information on screening failures or patient refusal was provided in the CONSORT (Consolidated Standards of Reporting Trials) diagram. Could the absence of this information suggest lack of equipoise or even selection bias?

It is also noteworthy that up to one third of the general population may be resistant to clopidogrel.[2] Would it have informed the findings if the individual responsiveness of patients to clopidogrel had been determined perioperatively? Much is made of the lack of power to assess thromboembolic outcomes from the trial, but during the first few months after TAVI, before endothelialization of the prosthesis, minimization of the risk of embolization remains clinically relevant.[3]