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Mass Surgical Treatment of Obesity and Type-2 Diabetes: Now is the Right Time

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I recently wrote a provocative commentary (1) following the article written by Anita Courcoulas on in JAMA surgery (2). After the Second World War, with the raise of tobacco usage, high alcohol concentrations intake, urban pollution, high fat diets and sedentary lifestyle, coronary atherosclerotic disease became one of the most important public enemy. The response came in 1950, at McGill University in Montreal, where Vineberg and Buller were the first to implant an internal mammary artery into the myocardium to treat cardiac ischemia and angina (3). Indeed, coronary disease peaked in the sixties and seventies, and saphenous vein graft coronary bypasses popularized by the Argentinian Rene Favaloro, while he worked at the Cleveland Clinic, increased exponentially (4). Mass surgical treatment took its course, with cardiac surgical institutes growing like mushrooms everywhere in the world. Hospitals were built solely on this pathology, with cardiologists, coronarographers, perfusionnists and dedicated cardiac surgeons doing more than half a million procedures a year in USA, and an estimated > 1 million per year worldwide (4). That volume has recently gone down by almost half these numbers, from interventional cardiology, but mostly from a decrease in tobacco and alcohol usage, a better lesser fat diet, statins and increased regular exercises (in lesser local atmospheric pollution).

Is it possible that in order to target obesity and type-2 diabetes, we have to go the same path? That is, mass surgical treatment, is again ahead of lifestyle changes and medical treatment. We should be building obesity/diabetes institutes, entire hospitals with multidisciplinary teams, complete with internists, endocrinologists, bariatric and metabolic surgeons, psychologists and nutritionists, as well as public health stakeholders. We could operate millions of affected patients in the World and really have an impact on those 2 chronic diseases, as there is an estimate of 350 million affected (5). We should be operating fast enough, so that the new pool of patients would not overlap on the ones we are treating annually.

Already, with the rapid rise of sleeve gastrectomy, the number one choice in USA, 200,000 patients are operated annually, and perhaps a projected < 500000 operations per year in the globe for 2015. That is not enough; we should be doing 10 times these numbers, at the very least. Even at 5 million patients per year, it would take us 70 years to operate everybody. But that is a reasonable goal in the short-term. It would take a procedure that is relatively brief, with few complications, a very low mortality rate, reproducible and has acceptable long-term results. At this time, laparoscopic sleeve gastrectomy would fit this profile (GERD can be treated medically), better that Roux-en-Y gastric bypass, as it may have long-term bowel obstruction risks, ulcer risks, micronutrients severe deficiency, bone disease, and 10% hypoglycemia/dumping syndromes (6, 7). Sleeves gastrectomies can be revised more easily with numerous options. Also, I can do 3 sleeves while one gastric bypass is being done in the same time interval, as we have a surgical manpower problems, the former is preferable. Is it time for mass surgical treatment of obesity and type-2 diabetes? Yes, now is the right time.

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