



EDITORIAL

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Is Bariatric Surgery the Cure for Diabetes?

Regular readers out there know that I've ranted and raved on many an editorial occasion about the diabetes epidemic in this country. Diabetes is one of the most-rapidly growing diseases in the nation, with an overall prevalence that's at least 4 times greater than it was in 1980. Diabetes is unequivocally a devastating disease for its victims, with a phenomenal panoply of microvascular and macrovascular complications, including vision-robbing retinopathy, renal failure, disabling neuropathy, heart attacks, strokes, and amputations. Diabetes could well be the straw that breaks the camel's back of the health care system, as the coming avalanche of devastating diabetic complications overwhelms the faltering medical delivery network in this country.

So, it indeed has been extremely welcome news to many observers that an effective cure for diabetes has been discovered after searching all these years. A surgical procedure has definitively made diabetes disappear in many of those who are willing to go under the knife and endure the indicated surgery. This sounds almost too good to be true, dear reader, but I assure you that is fact, pure and simple. Our surgical colleagues have proven quite nicely that a trip to the operating room (OR) can make diabetes vanish and in fairly short order. What in the world am I prattling about? A surgical cure for diabetes? Can it really be so?

The recent medical literature does offer a reason to believe that our surgical colleagues have cured diabetes, with several recent stud-

ies to that effect. Perhaps the best study was one from the Cleveland Clinic, published earlier this year in the *New England Journal of Medicine*. The authors studied patients with type 2 diabetes aged 20 to 60 years and who had a body mass index between 27 and 43. A total of 150 patients were randomized to receive either intensive medical therapy, gastric bypass surgery

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combined with intensive medical therapy, or a sleeve gastrectomy combined with intensive medical therapy. (Sleeve gastrectomy is a kinder and gentler surgical procedure than gastric bypass surgery, associated with fewer postoperative [post-op] complications.) The patients were followed at 3-month intervals to see how well they did in meeting aggressive diabetes management goals, including an A1C level < 6%, blood pressure level < 130/80 mm Hg, and a low-density lipoprotein cholesterol level < 100 mg/dL. A variety of other measures of insulin resistance and insulin secretion were also followed at the same intervals.

The results showed that both surgical procedures beat the pants off intensive medical therapy alone. After a year, only 12% of the medical therapy patients achieved an A1C level of < 6%, compared with a whopping 42% of the bypass patients and a nearly-as-good 37% of the sleeve-gastrectomy patients. But

get this: All of the bypass patients who achieved A1C levels < 6% did so with no antidiabetic medications at all, while only 28% of the gastrectomy patients needed antidiabetic medications to get below 6%.

How can this be? No one knows for sure, but we do know that the marked improvements in diabetes occur within just a few weeks of surgery, long before any real mean-

ingful weight loss has occurred. The best guess is that rearranging the gut plumbing somehow alters the brain-gut interactions involving incretin hormones in such a way as to fundamentally change the way that nutrients are processed in the body. But, isn't it quibbling to ask for a detailed physiologic explanation of these miraculous post-op results? Shouldn't we all be shouting from the rooftops that the blades (the surgeons) have dramatically cured diabetes, a cure that has long eluded us more effete fleas (the internists)? My apologies if younger readers have never heard of the age-old rivalry between the blades and the fleas, but it's a hoary tradition of competition between 2 specialties of medicine with very different philosophic underpinnings.

Okay, now it's time for me to show my true cards in this little editorial diatribe and tell you that this surgery is really and truly the wrong way to go. But, why in the world would I be less than

wildly enthusiastic about bariatric surgery as a cure for a disease that has proven so refractory to medical management? Am I just an old crank determined to reject modern advances, especially if they come from outside my specialty?

Well, let's stop and ask ourselves if we truly believe that aggressive bariatric surgery is the cure for the epidemic scourge of diabetes

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in Western nations. Does anyone really believe that we have anywhere near the number of trained surgeons or available ORs to treat diabetes as a surgically-curable disease? Of course, we don't; we would have to discontinue practically every other type of surgery just to make available the ORs and the surgical teams that would be needed. An even larger problem is the moral hazard we would run by allowing the population to believe that diabetes is no longer a big deal and that your friendly neighborhood surgeon stands ready with knife in hand to

cure you of its consequences, the results of the metabolic malpractice you inflicted on your own body. Of course, I don't want to blame the patient, especially with the strong genetic underpinnings of type 2 diabetes, but our society has enabled diabetes in a variety of pernicious ways. We have markedly de-emphasized physical education in our schools, and we have idly sat by

while fast-food chains have super-sized and then super, super-sized their portions. We have watched our waistlines expand and expand until our belts are stretched to the breaking point.

I truly believe that diabetes is a societal affliction directly related to the lifestyle choices we have made as a culture over the last few generations. We have facilitated a sedentary existence for a large fraction of our society, and we have aided and abetted caloric over-indulgence on a massive scale.

Therefore, the cure for diabetes

must surely lie in societal efforts to get us moving regularly and to get us to lay down our knives and forks before it's too late. Attempting to cure diabetes with the surgeon's scalpel is, to my mind, a cruel illusion and a phenomenally disturbing misuse of scarce medical resources. Call me an embittered old cynic if you must, but I would say *fat chance* to those who look to bariatric surgery as the cure for type 2 diabetes.

Author disclosures

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