GOODBYE FAT, GOODBYE DIABETES

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heding those extra pounds has worked wonders for Rahul. A weight loss procedure he underwent two years ago helped him drop a quarter of his weight, from 106kg to 78kg and return to a more acceptable waist girth of 36 inches from an oversized 44. But that’s not what he is elated about — it’s a “surprising” side effect that changed his life completely. The 31-year-old IT engineer had been living with diabetes for more than a decade but after surgery the condition vanished into thin air. “It was like being reborn,” he says.

Rahul dumped his insulin pump soon after his operation in January 2009. All oral drugs — except a pill that has a protective effect on the heart — too, have been stopped. “Earlier, I spent nearly Rs 1 lakh on medicines every year,” says Rahul.

For Surendra Sharma (name changed), who recently retired as manager at an international airline, everything in life has been an ordeal. Weighing 190 kg, the 61-year-old Sharma belonged to the “extreme obesity” category. For years, he has been suffering from a host of life-threatening ailments — diabetes, hypertension, thyroid and water retention in the lungs. Though initially reluctant, Sharma finally decided to go under the scalpel almost two years ago. Today, he is a changed man. His weight has dropped to a manageable 115 kg. He can easily climb the stairs to his second-floor house in Greater Kailash Colony in New Delhi. Walking two kilometres at a stretch is no sweat for him. But most important, his blood sugar levels are completely under check. And so is his blood pressure.

Though their procedures differed slightly, Rahul and Sharma benefited from what doctors collectively call bariatric surgery. The process — which reduces the size of the stomach or bypasses a portion of it — helps reduce food intake, thus minimizing abnormalities associated with metabolism. Bariatric surgeries are offered as a last option to extremely obese patients.

“It has been known for a while that apart from obesity, bariatric procedures can help take care of associated disorders, diabetes being a significant one,” says Jayashree Todkar, a bariatric surgeon in Pune who works with many hospitals, including two years ago. Todkar saw a recent report that explains why.

Bariatric surgery helps eliminate diabetes in obese and overweight people. T.V. Jayan on a recent report that explains why

“We have found that when obese people who are diabetic undergo bariatric surgery, their requirement for anti-diabetic medicines goes down drastically, if not disappears completely,” she says. Since 2003, Todkar and her senior colleagues, Shabab Shah, have conducted more than 1,500 bariatric surgeries, nearly half of the total procedures conducted so far in India. “Diabetes disappears completely in nearly 62 per cent of cases,” says Prakash Chowrey, who heads the metabolic and bariatric surgery division at Max Healthcare at Saket in New Delhi.

Early last month, the Brussels-based International Diabetes Foundation released a position paper, recommending bariatric surgery as a surgical option for managing diabetes in case of obese and overweight people. It says the combination of obesity and diabetes is one of the fastest growing diseases today, with close to 300 million people affected worldwide and 460 million people forecast to be affected by 2030.

An increasing number of bariatric surgeons also believe people with type 2 diabetes can benefit substantially from bariatric surgery under certain circumstances.

Worldwide, surgeons opt for bariatric surgery in those who have a BMI (body mass index) of 40 and in the case of obese individuals with a related co-morbidity (such as diabetes or hypertension) and a BMI of 35. For Indians, these values were brought down to 35.5 and 32.5, respectively.

“Indians and other Asian populations have a 3 to 5 per cent higher body fat percentage than the Caucasians at any given BMI. They also have a tendency to put on weight around the waist and suffer insulin resistance. As a result, they are vulnerable to multiple metabolic disorders at a BMI lower than that in the West,” says Todkar.

While the doctors have long observed the beneficial effects of bariatric surgery in diabetics, the exact mechanism that helps them forego or reduce their medication has been a mystery. Recently, a paper published in the journal Science Translational Medicine, however, seems to have resolved this puzzle. The scientists, led by Blandine Laferrere of the St Luke’s Roosevelt Hospital Center in New York, showed that this could be because of a drastic reduction in the circulation of certain amino acids following a bariatric surgery.

The New York researchers — combining one of the most popular bariatric procedures, gastric bypass surgery, with dietary remedies used to control blood glucose levels — showed that certain amino acids called branched chain and aromatic amino acids come down drastically after surgery and this helped improve blood glucose control substantially.

“The study is important as it opens new avenues of research to understand the physiopathology of diabetes and possibly develop new medication to treat it, including less invasive surgical techniques,” Laferrere told KnowHow.

“The New York scientist, however, feels bariatric surgery should be considered only a last option. The cornerstone of treatment for diabetes and obesity should be prevention and weight loss through behaviour modifications,” she maintains.