

# Mathura man undergoes diabetes surgery

Malathy Iyer | 154

Mumbai: Mathura resident Vrajendra Singh is happy that his medication for diabetes has more than halved over the last month. This drastic change in the 52-year-old patient's daily regimen has been triggered by a new treatment called diabetes surgery.

Singh became the first patient in Mumbai, and perhaps India, to undergo the neuro-endocrine brake surgery (see box) at Bombay Hospital on October 4. On Wednesday, he was present at a press conference called to announce the success of the surgery, which is among the newest entrants in the world of surgery.

The third part of the small intestine was cut and transpositioned to the first part, thereby stimulating a biochemical process that controls diabetes, said Bombay Hospital doctors.

"We won't call it a cure for diabetes because there is no theory on what causes diabetes. If there is no reason, how can we say that we have cured it?" pointed out Dr Ramen Goel, the third surgeon in the world to carry out the



MEDICAL EDDY: Vrajendra Singh (left), the patient, with Dr Ramen Goel

new method. But he was categorical that in Singh's case, the symptoms associated with diabetes—elevated blood sugar levels, high blood pressure, high levels of serum creatinine—had reduced to safer levels.

"He used to spend Rs 24,000 a year on medication. This is not a small sum for someone who transports cylinders in Mathura," said the doctor, also a teacher with the JJ Group of Hospitals.

The surgery means Singh's medicines are reduced. "He used to take five tablets a day but is now taking only one tablet for diabetes control. We will re-

## HOW WAS IT DONE?

- In diabetic patients, the insulin absorption mechanism is broken down. Now, surgeons claim that rearranging the intestine can control diabetes and even cure it.
- In the neuro-endocrine brake or ileal transposition surgery, the order of the intestine is changed from duodenum (the c-shaped first part), the jejunum (coiled midsection) and the ileum (the final section that leads into the large intestine) to the ileum, the duodenum and the jejunum.
- This provides stimulus for production of GLP-1, a hormone that is secreted in response to food, which, in turn, is the stimulus for insulin secretion and absorption. The beta cells in the pancreas, which produce insulin, also recover their normal functioning over months. 154

view this dosage as well within a week," said the doctor. The surgery costs Rs 2-3 lakh, but in Singh's case, the hospital has waived off most of the charges.

Why is surgery emerging as an option for diabetes? Said Dr Goel, "The long-term effects of diabetes cannot be controlled in 45% of the cases despite medication, whereas surgery provides 80% chance of controlling it." While bariatric or weight-loss surgery for obese patients has now been recognised for diabetes control, what sets the diabetes surgery apart is the fact that patients here are lean.

Considering that the surgery is nascent—barely six years old and with a patient base of about 500 so far—a section of the medical fraternity is sceptical. "Diabetes is the result of hormonal imbalance. How can surgery cure it? We have to wait and watch," said a doctor.

According to Dr Muffazal Lakdawala, bariatric surgeon who also performs a variant of the diabetes surgery called duodeno bypass as part of an international taskforce, "We cannot recommend this surgery to all diabetic patients. Such surgeries are new and there is a need to evolve protocols and document findings."