

# Surgical study highlights pros and cons of gastric bypass surgery for severe obesity

November 18 2008

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Severely obese patients who underwent two different gastric bypass techniques had lost up to 31 per cent of their Body Mass Index (BMI) after four years, with no deaths reported among the 50 study subjects, according to the November issue of the *British Journal of Surgery*.

The number of patients suffering from high blood pressure fell by 76 per cent, diabetes fell by 90 per cent and cases of dyslipidaemia – abnormal concentrations of lipids or lipoproteins in the blood – fell by 77 per cent.

However 29 complications were reported in 27 patients, including minor wound infections and narrowing of the anastomotic suture, and ten patients had to be operated on again in the four-year period after surgery.

Surgeons at the University Hospital Zurich, Switzerland, carried out the study to compare two techniques and find out whether varying the length of the small bowel limb during surgery could offer superior weight loss.

It had been suggested by several studies that a longer length would reduce the body's ability to absorb certain sugars and fats.

As a result of the four-year study, they now perform proximal gastric bypass as the operation of first choice, having decided that the distal gastric bypass technique, with its longer alimentary limb, doesn't offer any significant advantages but does have a number of drawbacks.

"There has been an ongoing debate about whether having a longer limb offers the patient greater weight loss and we decided to compare both techniques" explains Dr Markus Muller from the University's Department of Visceral and Transplant Surgery.

Fifty patients having laparoscopic gastric bypass surgery were match-paired, with 25 undergoing the proximal technique and 25 undergoing the distal technique. The alimentary limb length in the proximal surgery group was 150cm and this increased to between 200cm and 400cm in the distal group.

The study subjects' BMIs averaged 45.9 in the proximal group and 45.8 in the distal group. All had been obese for more than five years and had failed to lose weight using conventional methods for at least two years. Forty were female, their average age was 38 and their average weight was 126kg.

Key findings included:

- BMI decreased from 45.9 to 31.7 in the proximal group (31 per cent) and from 45.8 to 33.1 in the distal group (28 per cent).
- Average operating time was significantly longer in patients undergoing distal than proximal bypass surgery (242 minutes versus 170 minutes) and distal patients stayed in hospital longer (nine days versus eight days).
- Over the four-year follow-up, 29 complications were reported in 11 patients in the proximal group and 16 patients in the distal group. 12 repeat operations were necessary, four in the proximal group and eight in the distal group. Two patients - one in each group - had two operations for both early and late complications.
- Sixteen early complications were reported in the first 30 days after

surgery - eight in each group. Eight of these were wound infections, there were two cases each of internal hernia, narrowing of the anastomotic suture and pulmonary embolism and one case each of staple-line bleeding and intra-abdominal abscess. Three reoperations and two endoscopic dilatations were required.

-- Thirteen late complications were reported 48 months after surgery, including seven internal hernias and three cases where the anastomotic suture had narrowed. There was also one case each of anastomotic ulcer, foreign body (part of a suction drain) and severe malnutrition. Nine reoperations and three endoscopic dilatations were required.

-- Before they received their gastric bypass, 29 patients had been suffering from high blood pressure. Two years after surgery this had dropped to seven patients (from 14 to two in the proximal group and 15 to five in the distal group).

-- Diabetes declined from 19 patients to two (from ten to two in the proximal group and nine to zero in the distal group).

-- The number of patients with dyslipidaemia – abnormal concentrations of lipids or lipoproteins in the blood – fell from 39 to nine (from 20 to four in the proximal group and 19 to five in the distal group).

"Our study found that both laparoscopic and distal bypass operations were feasible and safe with no deaths" says Dr Muller. "There were no significant statistical differences between the two techniques when it came to weight loss or reducing health issues such as high blood pressure or diabetes.

"However, we were very concerned that one of the distal patients developed severe protein malnutrition, because malnourished patients have high complication rates after surgery. A further operation was

carried out to convert the distal bypass to a proximal bypass.

"As a result we now perform proximal gastric bypass surgery as the operation of first choice in morbidly obese patients."

Source: Wiley

Citation: Surgical study highlights pros and cons of gastric bypass surgery for severe obesity (2008, November 18) retrieved 4 May 2024 from

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