

Laparoscopic Duodenojejunal bypass with Sleeve gastrectomy- A novel procedure for resolution of Metabolic Syndrome in patients with BMI <32.5:

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Background: Type II DM resolution in morbidly obese patients following Metabolic Surgery suggests these might benefit even non-morbidly obese patients with Metabolic Syndrome. Available literature favours Combined Restrictive/Malabsorptive procedures over the others in control of Diabetes and other co-morbidities. Laparoscopic Duodenojejunal bypass with Sleeve gastrectomy is one such procedure performed in our series. Methods: Patients with < 32.5 BMI, confirmed to be Type II DM with HbA1C >7.5 were included in the study. Patients with Sliding Hiatus Hernia and C-peptide levels < 1 were excluded. Laparoscopic Duodenojejunal bypass was done in a retro colic fashion, anastomosis being done end-end, single layer suturing with a 60 F Sleeve. Results: A total of 14 patients (8 women, 6 men) included in the study were prospectively evaluated. The mean age was 36.5 yrs. The mean pre-operative BMI, (Fasting Blood Glucose) FBG and HbA1C was 29.9, 196.4 mg/dl and 8.2%. The postoperative BMI, FBG and HbA1C at the end of 6 mts and 1 year was 25.4, 110.2, 6.3% and 24.2, 106.4, 6.1% respectively. 12 out of 14 patients had complete remission and 2 had reduced medication use. 4 out of six patients who had Hypertension had complete remission, 2 had no improvement. Conclusion: Laparoscopic Duodenojejunal bypass with Sleeve, which combines the principles of Sleeve Gastrectomy and Foregut hypothesis, is an effective procedure for resolution of Diabetes and other co-morbidities even in lower BMI population. The stomach remnant is amenable to endoscopic surveillance for Carcinoma Stomach. Also with the possibility of altering the size of the Sleeve, the procedure can be made less restrictive which is best suited for a country like India with a low calorie-higher quantity food intake pattern, hence preserving the quality of eating.