Improvement in Type 2 Diabetes Mellitus following Bariatric Surgery in morbidly obese individuals

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BACKGROUND: Weight loss has been shown to improve the control of type 2 diabetes mellitus (T2DM). AIMS OF STUDY: To evaluate the impact of bariatric surgery on T2DM in morbidly obese individuals. METHODS: From August 2008 to November 2010, 47 consecutive patients underwent bariatric surgery at the Singapore General Hospital. All patients documented to have T2DM prior to surgery were included in the study.RESULTS: There were 16 patients suffering from T2DM (9 males). The median age was 43 years (range 32 - 54). 8 patients underwent laparoscopic sleeve gastrectomy (LSG) and 8 underwent laparoscopic gastric bypass (LGB). Median length of stay was 4 days (3-14). The median pre-operative weight was 116kg (85 -171) and body mass index (BMI) 40 kg/m2(33 - 70). Median follow-up was 5 months (1 - 26). Patients who underwent LSG had a median pre-operative HbA1c of 7.2% (6.4-8.2). All these patients were taking oral hypoglycaemic agents (OHAs). Median post-operative HbA1c levels were 5.8% (5.5-6.1), and all OHAs were discontinued. Patients who underwent LGB had a median pre-operative HbA1c of 8.2% (6.6-9.3). 5 patients were on subcutaneous insulin injections, in addition to oral hypoglycaemic agents (OHAs). Median post-operative HbA1c levels were 6.1% (5.2-8.0), and although insulin was discontinued in all, 2 patients were still taking OHAs. CONCLUSION: Bariatric surgery provided rapid and effective control of T2DM, allowing all patients to reduce or eliminate diabetic medication completely. Bariatric surgery may be considered as an adjuvant therapy for T2DM in morbidly obese individuals.