# LONG-TERM MAINTENANCE OF WEIGHT LOSS FOLLOWING REMOVAL OF INTRAGASTRIC BALLOON (IGB)

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#### **INTRODUCTION**

Obesity and its associated morbidity and mortality, is a global epidemic with increasing prevalence. Endoscopic bariatrics, primarily consisting of intragastric balloon (IGB) placement for variable periods of time, has become an accepted form of non-surgical treatment for obese patients in search of weight loss interventions. The long-term outcome of the procedure is still evolving and maintenance of lost weight once the balloon is removed remains controversial.

#### **OBJECTIVE**

The aim of this study is to determine if a mean of 6.5 months of IGB treatment provides long-term weight loss maintenance after IGB removal in the absence of continuous outpatient support.

#### **METHODS**

Twelve of 24 obese patients with the mean age of 40 years were successfully contacted. Anthropometric measurements were recorded at baseline, removal, and telephone follow-up. Successful long-term IGB therapy is defined as maintenance of total body weight loss of over 10% from baseline.

## **RESULTS**

At the time of balloon removal (mean of 6.5 months±2.6) the measurements were observed at body mass index (BMI) 30kg/m^2 (±2.9), mean percent of excess weight loss (EWL) 53% (±35.9), and percentage total body weight loss (%TBWL) 14% (±6.1). Telephone follow-up occurred after a mean of 4±2.3 years after removal of the IGB. Partial or complete regain has been observed for BMI 34 kg/m² (±5.9), %EWL 28% (±34.3), and %TBWL 4% (±8.4). Three patients (25%) maintained a mean %TBWL of 16% (mean %TBWL of 20% at removal). Five patients have kept a mean %TBWL of 4% (mean %TBWL of 13% at removal). Four patients (33%) returned to baseline body weight (%TBWL at 8-21% at removal). There were no complications related to the IGB treatment. One patient in the study suffered from unbearable nausea related to the IGB treatment and consequently underwent endoscopic IGB removal after 1 month. However, the patient was able to maintain %TBWL at the follow-up date.

### **CONCLUSION**

IGB treatment is an effective and safe non-invasive surgery, which results in variable weight loss over a temporary period of time. However, once the IGB is removed, recidivism or weight regain is a significant problem for the long- term benefit of this procedure. IGB therapy has proven to be a long-term weight loss solution in only 25% of patients as opposed to 83% of patients who saw temporary success at the time of removal. Continuous multidisciplinary outpatient support in the form of psychotherapy, regimented exercise, and supervision by a dietician are necessary not only while the IGB treatment is in place, but also after the balloon is removed would yield the best long-term benefit for these patients. IGB can however, be extremely valuable as a short-term weight loss intervention.

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