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**COMPARISON OF THE EFFICACY AND SAFETY OF ADJUSTABLE VERSUS NON-ADJUSTABLE INTRAGASTRIC BALLOONS: A LARGE INTERNATIONAL MULTICENTER STUDY**

**Endoscopic And Percutaneous Interventional Procedures**

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**Background:**

Non-adjustable Intra-Gastric Balloons (IGBs) reduce the gastric reservoir capacity and delay gastric emptying while implanted in patients for 6 months. The recently updated adjustable IGB adapts the same space occupying principle but with volume adjustability and longer durability (12 months).

**Objectives:**

This study aims to compare the adjustable IGB, with the traditional non-adjustable IGB regarding weight loss outcomes, tolerability, and safety.

**Methods:**

506 patients were implanted with the Non-Adjustable balloon (ORBERA) and 254 with the Adjustable balloon (Spatz3) between 2009 and 2017 at three centers in Australia and Brazil. Patients were followed up for tolerability, safety, and weight loss assessments ( $\Delta$ weight (kg), total body weight loss (TBWL, %), excess weight loss (EWL, %),  $\Delta$ BMI (kg/m<sup>2</sup>)).

**Results:**

All balloon insertion, extraction, and adjustment procedures were 100% successful. The prevalence of intolerance/early removal of the balloon was significantly lower among Spatz3 patients (2.4%), in comparison with ORBERA patients (4.6%) In total, ORBERA patients lost 14.8kg weight ( $\Delta$ BMI 5.4 kg/m<sup>2</sup>, TBWL 15.4%, EWL 59.4%) at balloon removal at 6 months, whereas Spatz3 patients lost 14.8kg/17.9 kg at 6/12 months (6/12 months:  $\Delta$ BMI 5.2/6.3 kg/m<sup>2</sup>, TBWL 14.6/17.7%, and EWL 53.6/64.2%). Among those who never had endoscopic bariatric procedure before (naïve patients), Spatz3 patients reported significantly greater improvement in TBWL at 6 months post-implantation (P=0.001), in comparison to ORBERA patients (Figure 1).

**Conclusion:**

These results suggest that adjustable intragastric balloon leads to greater tolerability and improved balloon retention, and is more effective for weight loss as compared to a non-adjustable balloon.

