

Intragastric balloon: Puerto Rico experience

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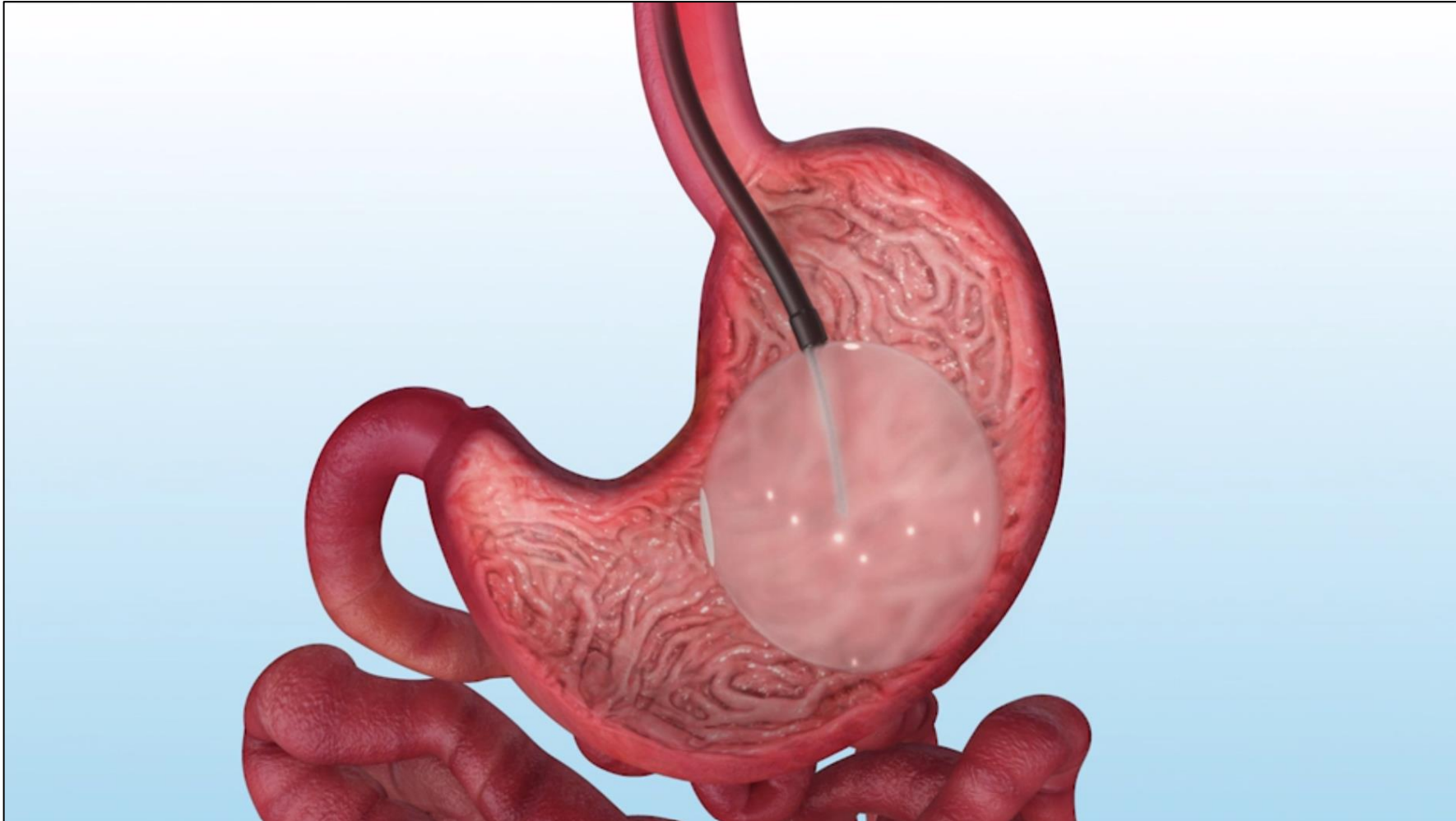
Background

- Obesity is a chronic disease of excessive fat storage, which places the individual at risk of premature death and obesity-associated diseases.
- The age-adjusted prevalence of obesity among U.S. adults was 42.4% in 2017–2018.¹
- In Puerto Rico, an estimated 32.5% of the population is obese.
- The estimated annual medical costs of obesity-related illness in the US is \$210 billion per year.²

Introduction

- Intra-gastric Balloons (IGBs) are currently indicated for BMI 30-40 kg/m².
- IGBs effects include reduction of the gastric volume, neurohormonal changes and delayed gastric emptying.³
- Contraindications are previous gastric surgery, coagulopathy, GI bleeding pregnancy, alcoholism or drug addiction, and cirrhosis.

Intragastric Balloon



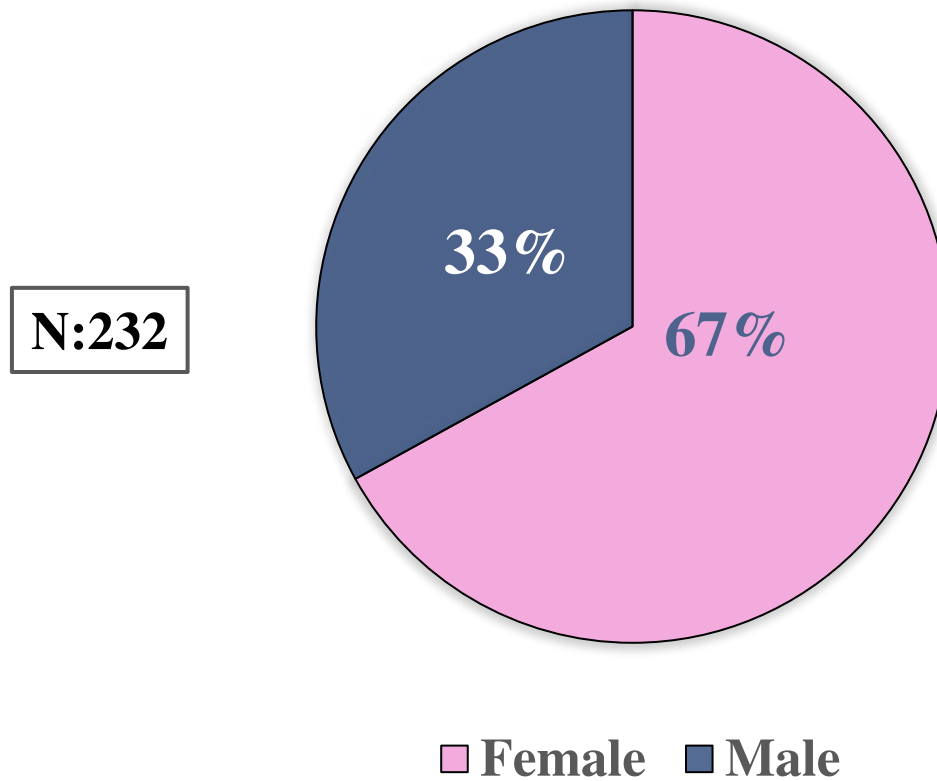
Methodology

- Retrospective analysis, multicenter (2), consecutive patients who underwent IGB placement 2016-2018
- IRB-approved
- Outcomes at 3 and 6 months after IGB placement
 - Total body weight loss (%TWL)
 - Excess body weight loss (%EWL)
 - BMI reduction
- Safety

Objective

- The aim of this study is to examine the effectiveness and safety of the single-chamber fluid-filled IGB, commercially known as Orbera (Apollo Endosurgery, Austin, TX), for weight loss and compare its results by sex, across different age groups, and BMI ranges.

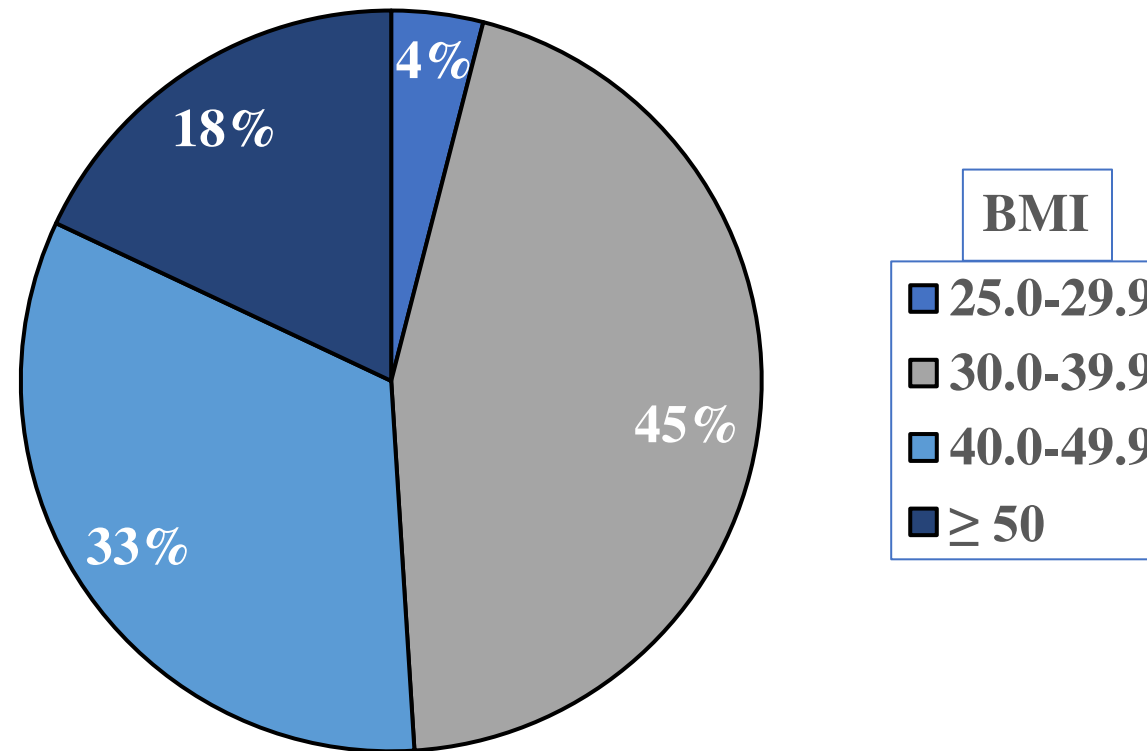
Results



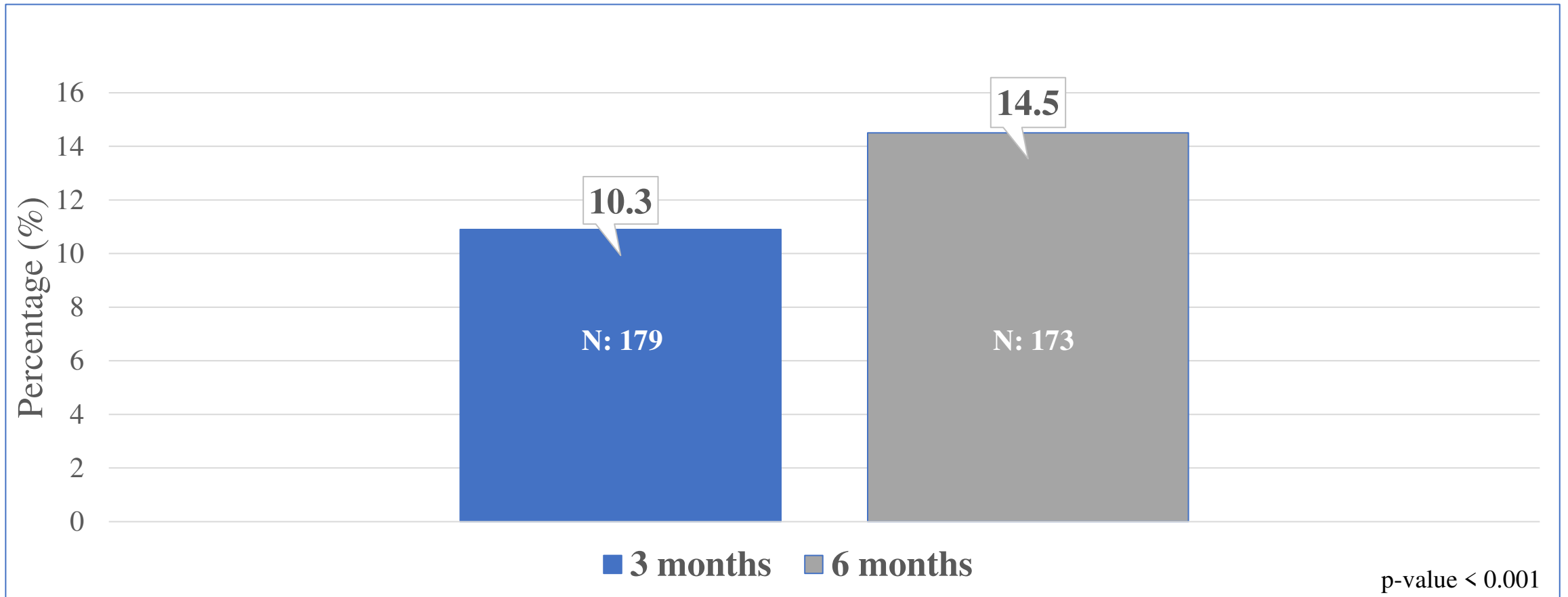
Demographics

Age, years (mean \pm s.d.)	44.5 \pm 10.3
Weight, kg (mean \pm s.d.)	117.7 \pm 30.5
BMI, kg/m ² (mean \pm s.d.)	42.0 \pm 9.0
Hypertension	36%
Hypothyroidism	15%
Type 2 Diabetes Mellitus	13%
Hyperlipidemia	3%

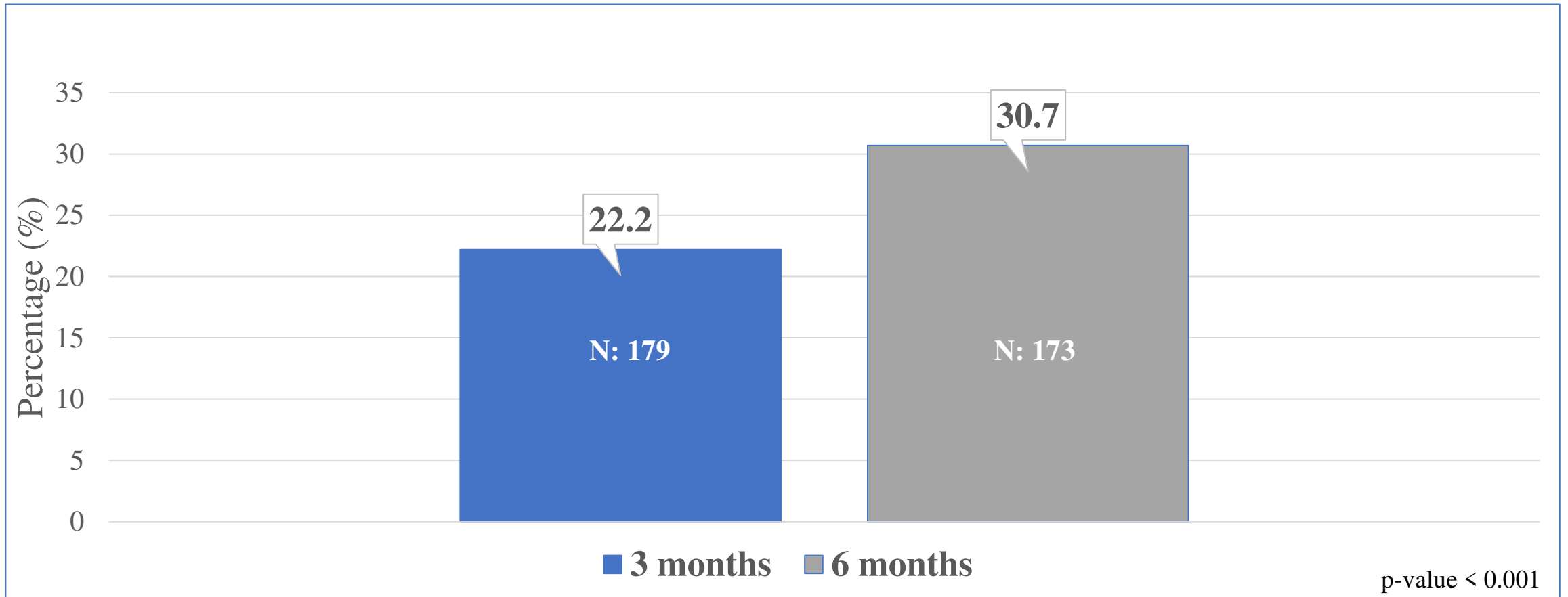
Baseline BMI distribution



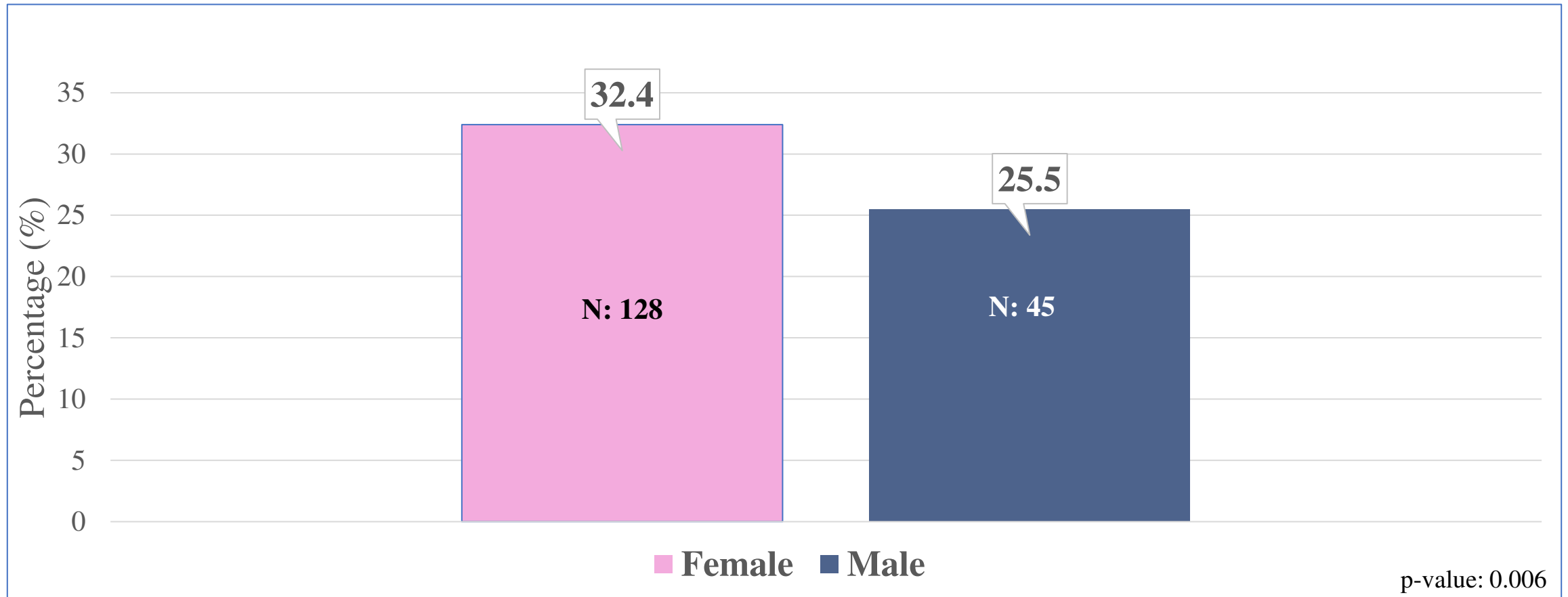
%TWL



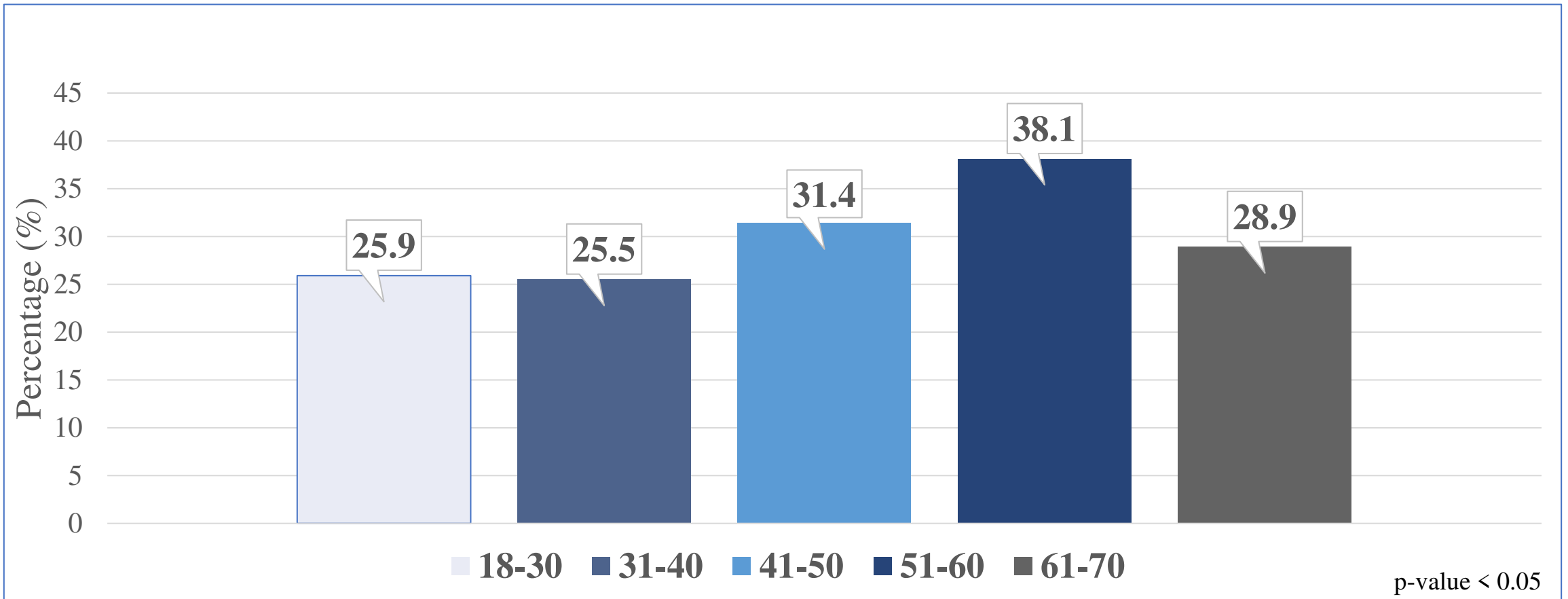
%EWL



%EWL at 6 months by sex



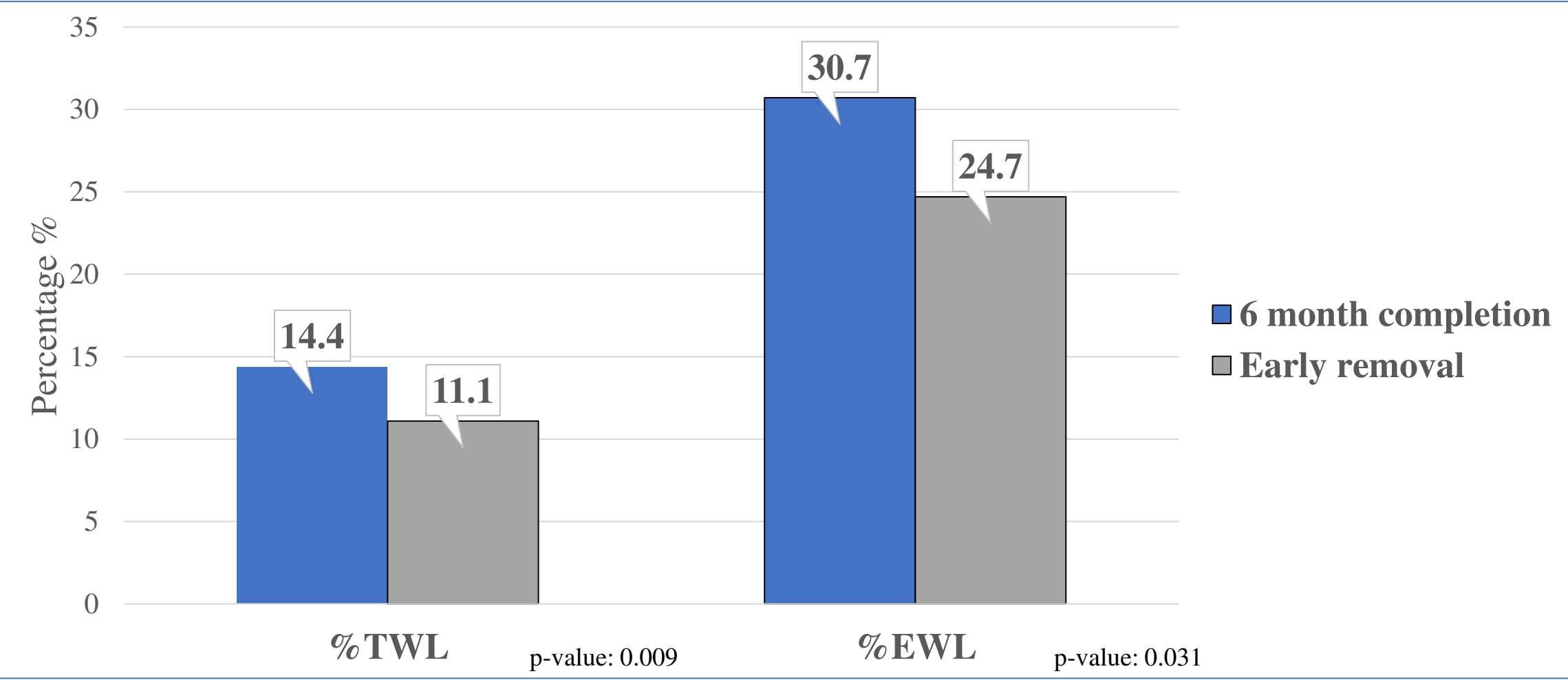
%EWL at 6 months by age group



Early IGB removal

Early balloon removal:	N = 30 (13%)
Intractable Nausea and/or Vomiting	18
Patient Request	6
Refractory GERD	3
Information not available	3

Early removal vs 6-mth IGB



Adverse events

	N = 22 (9%)
Required IV Fluids in clinic	13 (5.4)
Requited Visit to ED	3 (1.3)
GI bleed	4 (1.7) *
Pancreatitis	1 (0.4)
Spontaneous balloon deflation	1 (0.4) **

*Low volume hematemesis (No PRBC needed)

**At week 5 post-implantation

Discussion

- %TWL of at least 10% is associated with improvement in comorbidities
 - 74% of our cohort reached this threshold
- IGB was most effective in female and patients aged 51-60.
- 13% required early IGB removal for intractable symptoms in most cases.
- IGB's are safe and well tolerated
 - only 5% of patients required IV fluids for rehydration and 1% ED visits

Conclusions

- IGBs are effective and safe alternative for obesity when lifestyle interventions and conservative measures fail
- Future studies should include long term results (> 12 months), cost effectiveness, improvement in comorbidities and reduction in healthcare costs in Puerto Rican patients.

References

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