

The Effects of Different Types of Intragastric Balloon on Weight Loss: A Comparative Research

Key words: Intragastric balloon, weight loss, obesity, non-surgical

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BACKGROUND

- As many know, the intragastric balloon has become one of the most preferred non-surgical methods for weight loss. Its effectiveness depend on factors such as how long a patient holds the gastric balloon, the patient's preference for sedation, and the time it takes to achieve their ideal weight. Our motivation behind this research was to determine which type of gastric balloon would be most beneficial for our patients to achieve their desired weight.

OBJECTIVE

- We aimed to detect the effectiveness of three different balloon durations (1 year balloon, 6 months balloon, and 4 months balloon) according to reach the ideal weight of the patients.

METHOD

- This retrospective research was prepared with data from 75 patients (59 females (78.7%) and 16 males (21.3%) who applied to Clinical Obesity and Metabolic Surgery between June 2022 and February 2023.
- The patients were divided into 3 groups (25 each). The groups consisted of patients who had a 1-year endoscopic intragastric balloon, a 6-month endoscopic intragastric balloon, and a 4-month swallowable balloon.
- Before the procedure, the patients' body mass index values were minimum 25.20 and maximum 50.30. (\bar{x} =33.76). After the procedure, it was minimum 18.60, maximum 44.80 (\bar{x} =28.60).
- Mean of age is 35.
- Data results were analyzed through SPSS (Statistical Package Program for Social Sciences) program. The comparison of the weight loss difference according to the type of balloon was examined with the Kruskal Wallis Analysis.

RESULT

- Our analysis showed no significant difference between the average weight and BMI before and after the procedure across the different balloon types.
- Patients with the 1-year balloon started with an average weight of 99.10 and a BMI of 34.88, which later reduced to 81.53 and 28.70 respectively.
- The 6-month group began with an average weight of 88.79 and a BMI of 32.48. Post-procedure, these numbers decreased to 75.04 and 27.49 respectively.
- Lastly, the 4-month group had an initial average weight of 95.08 with a BMI of 33.91, which shifted to 82.90 and 29.59 respectively post-procedure.

TABLES

Table 1. Descriptive Statistics

Balloon type		preweight	prebki	postweight	postbki
1 year	N	25	25	25	25
	Mean	99,10	34,88	81,53	28,70
6 months	N	25	25	25	25
	Mean	88,79	32,48	75,04	27,49
4 months	N	25	25	25	25
	Mean	95,08	33,91	82,90	29,59
Total	N	75	75	75	75
	Mean	94,32	33,76	79,83	28,59

Table 2. Test Statistics

	pre-weight	pre-bmi	Post-weight	Post-bmi
Kruskal-Wallis	3,648	2,291	1,230	1,202
H				
df	2	2	2	2
asymp Shallow.	,161	,318	,541	,548

CONCLUSION

- Despite the lack of a significant difference among the groups, it's worth noting that the 1-year balloon group exhibited the highest weight loss. This could be attributed to the adjustability of the balloon, which can be modified if the current size doesn't effectively reduce the patient's food intake.

THANK YOU FOR ATTENTION...

