

Effectiveness of Bariatric Surgery Versus Lifestyle Weight Loss Interventions in Adolescents in Israel

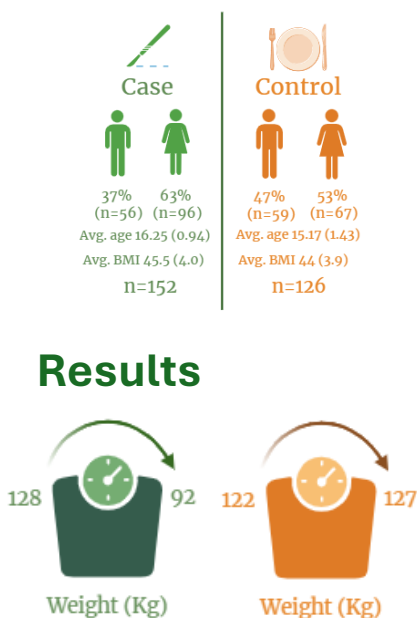
A Long-Term Study of Weight Management and Nutrient Levels

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Background and objectives

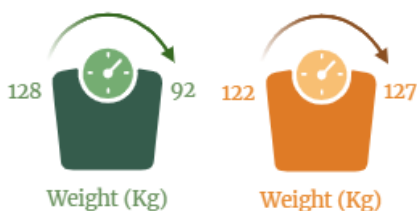
Bariatric surgeries are considered efficient for weight loss, yet long term effect remains debatable. We examined medical and nutritional outcomes in adolescents who undergone bariatric surgery for 5 years and compared them to a similar group of individuals conventionally treated.

Methods and Sample

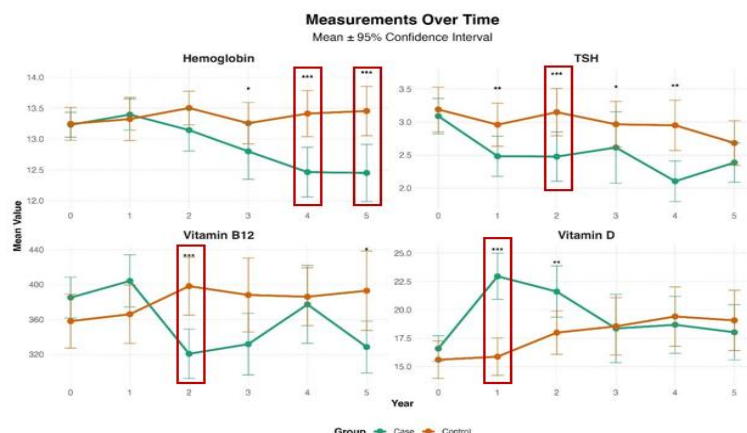
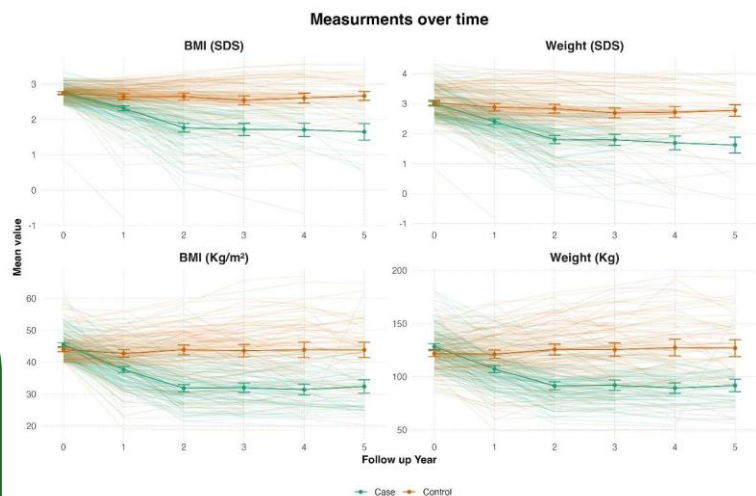


In this retrospective cohort study, we collected data from medical records about adolescents (<18 years old) with obesity between 2011 and 2021. The case group underwent surgery, and the control group was treated conservatively with a dietitian (at least 3 encounters). We collected data for five years, including weight, BMI, TSH, hemoglobin, vitamin B12, vitamin D, and folic acid levels.

Results



In 2011-2021, 152 adolescents had bariatric surgery (sleeve) and 126 saw a dietitian at least 3 times. The case group had a more significant reduction in weight and BMI (p-value <0.001), reflected by SDS as well (p-value <0.001). The case group had lower levels of hemoglobin, vitamin D, vitamin B12, and TSH. At different time points, these differences were statistically significant.



Conclusions

***p < 0.001, *p < 0.05, **p < 0.01

We detected a significant weight decrease in the bariatric group, which is consistent with the literature. In addition, we found, in the bariatric group, a decrease in hemoglobin, TSH, and Vitamin B12 (in some of the years of the follow-up). These findings highlight the importance of long-term management of patients, as they reach adulthood with changed anatomy and physiology.