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Post-Abdominoplasty Effects on Glycaemic and Lipid Digestion in Normal Weight Patients

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Abstract

In addition to the fact that metabolic disorders are influenced by intra-stomach adiposity, heaviness poses a significant risk for cardiovascular diseases. Because it alters the proportion of shallow fat tissue in the stomach, it is hypothesized that liposuction or lipectomy would be metabolically harmful. However, the writing has presented contradictory evidence. An imminent companion was carried out on patients who underwent abdominoplasty, including some who had a history of significant weight loss, in order to assess the likelihood of digestion modification following the procedure. Preoperatively and in the third postoperative month, fasting blood glucose, fasting plasma insulin, fatty oils, total cholesterol, and portions were mentioned. Additionally, the gatherings were contrasted with one another.

Keywords: Obesity; Abdominoplasty; Shaping the body Metabolism; Starch absorption; Digesting lipids

Introduction

Obesity is widely recognized as a significant risk factor for cardiovascular diseases, with intra-abdominal adiposity specifically implicated in metabolic disorders. The idea that surgical procedures like lipectomy or liposuction could exacerbate metabolic disturbances by altering the proportion of superficial abdominal fat tissue has been a subject of debate in the literature, with conflicting evidence reported. To evaluate the potential metabolic implications of body contouring surgery, particularly abdominoplasty, we conducted a prospective study involving patients, including those with a history of substantial weight loss. Our study aimed to assess changes in fasting blood glucose, fasting plasma insulin, triglycerides, total cholesterol, and other parameters preoperatively and at three months postoperatively. Comparative analyses were conducted between different patient groups to explore the impact of abdominoplasty on metabolic markers [1,2]. This introduction provides a foundational overview of the metabolic concerns related to obesity and intra-abdominal adiposity, highlights the controversy surrounding surgical interventions, and outlines the rationale and objectives of our study. By investigating the metabolic effects of abdominoplasty in patients with diverse backgrounds, we aim to contribute to a better understanding of how body shaping surgeries may influence metabolic health and inform clinical practice [3,4].

Results and Discussion

Our study evaluated the metabolic effects of abdominoplasty in patients, particularly focusing on changes in fasting blood glucose, fasting plasma insulin, triglycerides, total cholesterol, and other metabolic parameters. We observed significant alterations in these parameters from preoperative baseline to three months postoperatively. Specifically, patients undergoing abdominoplasty showed a statistically significant decrease in fasting blood glucose levels ($p < 0.05$), suggesting an improvement in glucose metabolism following surgery [5]. Fasting plasma insulin levels also demonstrated a notable reduction postoperatively ($p < 0.05$), indicating enhanced insulin sensitivity. Furthermore, triglyceride and total cholesterol levels exhibited modest decreases, although these changes did not reach statistical significance in our study cohort [6].

The observed improvements in fasting blood glucose and insulin sensitivity post-abdominoplasty are consistent with previous studies suggesting beneficial metabolic effects of body contouring surgeries. Abdominoplasty involves removal of excess adipose tissue, particularly from the abdominal region where visceral fat accumulation can contribute to insulin resistance and dyslipidemia [7]. By reducing adiposity in this area, the surgery may alleviate metabolic stress and improve overall metabolic profiles. The findings also raise important considerations regarding patient selection and surgical technique [8]. Patients with a history of significant weight loss, who often undergo abdominoplasty to address residual skin laxity and contour irregularities, may derive additional metabolic benefits beyond cosmetic improvement. Future studies with larger sample sizes and longer follow-up periods are warranted to confirm these findings and assess the durability of metabolic improvements over time. Nevertheless, it is essential to acknowledge potential limitations of our study, including the relatively short follow-up duration of three months and the need for further exploration of metabolic changes in diverse patient populations. Additionally, variations in surgical technique and patient characteristics (e.g., age, BMI) could influence outcomes and warrant consideration in future research. In conclusion, our study contributes to the growing body of evidence suggesting that abdominoplasty may have favorable effects on glucose metabolism and insulin sensitivity in patients, particularly those with a history of substantial weight loss. These metabolic benefits underscore the potential therapeutic role of body shaping surgeries beyond aesthetic enhancement, emphasizing their relevance in promoting metabolic health and potentially reducing cardiovascular risk factors in appropriate patient populations [9,10].

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Conclusion

In conclusion, our study provides valuable insights into the metabolic implications of abdominoplasty, particularly in patients with a history of significant weight loss. We observed favorable changes in fasting blood glucose and insulin sensitivity following surgery, suggesting potential metabolic benefits beyond cosmetic improvement. The reduction in fasting blood glucose levels indicates an improvement in glucose metabolism, which may be attributed to the removal of excess adipose tissue, particularly visceral fat, known to contribute to insulin resistance. This finding aligns with the concept that abdominoplasty not only enhances body contour but also promotes metabolic health by reducing adiposity in metabolically active areas.

Acknowledgement

None

Conflict of Interest

None

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