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Successful Pregnancy without Preeclampsia after Weight Loss: A Case Report

Ani A. Gasparyan [1*], Andranik P. Poghosyan [2], Tigran G. Sargsyan [3], Norayr N. Ghukasyan [4], Haykanush S. Khachaturyan [5]

[1] Obstetrician-Gynecologist, MC Erebouni
Assistant Professor, Department of Obstetrics and Gynecology No. 1 of YSMU, Yerevan, Armenia
[1, 2] Director of Maternity Clinic, MC Erebouni, Yerevan, Armenia
[3] Director of Hrazdan Maternity Clinic, Yerevan, Armenia
[4] Obstetrician-Gynecologist, MC Erebouni, Yerevan, Armenia
[5] Resident, MC Erebouni, Yerevan, Armenia
[*]Corresponding Author Email: ani.gaspary@gmail.com

Abstract

Preeclampsia (PE) is a leading cause of maternal morbidity and mortality, with obesity recognized as a significant risk factor. This case report highlights a successful pregnancy outcome without recurrence of preeclampsia following substantial preconception weight loss through bariatric surgery. A 29-year-old woman with a history of severe preeclampsia and obesity in her first pregnancy underwent bariatric surgery, resulting in a 50 kg weight reduction. She subsequently conceived within a year and carried the pregnancy to term without developing hypertensive complications. The case underscores the importance of preconception weight management in reducing PE risk, especially in women with a prior history. While bariatric surgery contributed to the outcome, the decisive factor appeared to be the weight loss itself. This report supports further investigation into the role of structured weight loss interventions in mitigating preeclampsia recurrence in obese patients.

Keywords

Bariatric surgery, obese, preeclampsia, weight loss.

INTRODUCTION

Preeclampsia (PE) is a serious pregnancy complication characterized by new-onset hypertension after 20 weeks of gestation, often accompanied by maternal organ dysfunction [1]. It affects approximately 1% of all pregnancies and 1.5% of first-time mothers, contributing to a significant number of maternal deaths globally [2]. The risk of recurrence in subsequent pregnancies is also notably high [3].

Obesity is a major risk factor for hypertensive disorders in pregnancy, including PE. Women with a body mass index (BMI) over 30 kg/m² have up to a threefold increased risk of developing PE [4]. Excessive weight gain during pregnancy further elevates this risk [5]. Research indicates that weight reduction before conception may lower the likelihood of developing PE [6]. Various strategies, including dietary changes, physical activity, and medical interventions, can contribute to effective weight management [7].

This case report presents a successful pregnancy outcome in a woman with a history of preeclampsia who experienced significant weight loss before her second pregnancy.

CASE PRESENTATION

A 29-year-old woman with a history of obesity and preeclampsia during her first pregnancy successfully delivered her second child without developing preeclampsia after substantial weight loss.

Before her first pregnancy, she weighed 98 kg (BMI = 38.3 kg/m²). By the third trimester, her weight had increased to 106 kg (BMI = 41.4 kg/m²). At 37 5/7 weeks, she developed severe preeclampsia with blood pressure reaching 180/120 mmHg. Due to the severity of her condition, she underwent an emergency cesarean section. Her postpartum recovery was uncomplicated.

In October 2022, the woman underwent bariatric surgery as part of her weight loss journey. Following the procedure, she lost approximately 50 kg, reaching a normal BMI before conceiving her second child. While bariatric surgery was a contributing factor, the key preventive measure was the substantial weight loss itself, which helped reduce the risk of preeclampsia.

During her second pregnancy, she gained 10 kg (BMI = 28.5 kg/m²). This pregnancy progressed without complications. At 37 6/7 weeks, she was admitted due to premature rupture of membranes and underwent an emergency cesarean section, delivering a healthy male infant weighing 2800 g. The postpartum period was uneventful, and she did not develop preeclampsia.

DISCUSSION

Weight loss before pregnancy has been associated with improved maternal health outcomes. Studies have shown that even a modest weight reduction of 5–10% can lower the risk of metabolic complications, including hypertensive disorders

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of pregnancy [8]. Guidelines recommend that women with obesity, particularly those with a BMI ≥ 35 kg/m², consider weight management interventions before conception to improve pregnancy outcomes [9].

While some experts suggest waiting 12–18 months after significant weight loss before attempting pregnancy, current research has not established a definitive risk associated with conception within the first postoperative year [10].

This case highlights the potential benefits of preconception weight loss in reducing the risk of preeclampsia. Further research is necessary to determine the most effective weight management strategies for preventing hypertensive disorders in pregnancy [11].

CONCLUSION

Weight loss before pregnancy, rather than any specific surgical procedure, may be a key preventive factor in reducing the risk of preeclampsia. This case illustrates how significant weight reduction led to a successful pregnancy without PE. However, further studies are needed to provide stronger evidence supporting weight loss as a preventive measure against preeclampsia.

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