Extended Abstract

Delivery outcomes in super morbid obesity

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Keywords: Obesity, pregnancy, Body mass index

Obesity rates in the United States continue to increase rapidly. For the first time in 2017-2018, the adult obesity rate in the United States surpassed 40 percent.[1] The COVID-19 pandemic only exacerbated obesity rates. Recent data suggests that 42% of adults gained undesired weight during the pandemic, with the average weight gain 29lbs.[1] The World Health Organization has further classified obesity. BMI at or above 30 kg/m^2 to 35 kg/m^2 is considered class I obesity, whereas class II obesity is defined as BMI greater than or equal to 35 kg/m^2 to 40 kg/m^2, and class III obesity is defined as BMI greater than or equal to 40 kg/m^2.[2] More recently, a BMI greater than or equal to 50 kg/m^2 has been defined as super morbid obesity.[3]

Rates of obesity amongst pregnant people also continue to rise. Based on the 2017-2018 National Health and Nutrition Examination Survey, 39.7% of women of reproductive age in the United States are obese.[4] Obese pregnant people are more likely to have medical complications during pregnancy, including higher rates of cardiac dysfunction, proteinuria, sleep apnea, gestational diabetes, and preeclampsia.[5,6] Obese women are also at higher risk for experiencing stillbirth. A recent retrospective cohort study found that women with a BMI > 50 kg/m^2 have a 5.7-fold and 13.6-fold increased risk of stillbirth at 39 weeks and 41 weeks when compared to normal weight women.[7]

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Please cite this abstract as: Foster M, Vemulapalli R, Santillan DA, Greiner AL. Delivery outcomes in super morbid obesity. Proc Obstet Gynecol. 2024;13(1):Article 7 [3 p.]. Available from: https://pubs.lib.uiowa.edu.Free full text article.

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Obese women are more likely to require medically-indicated labor induction.[8] Additionally, women with obesity are more likely to have an abnormal labor curve, with the overall duration of both the first and second stage of labor being significantly prolonged.[8-10]

Previous studies have demonstrated an association between obesity and higher rate of Cesarean and failed induction.[8] Further studies have attempted to investigate the success of various induction methods in women with obesity.[11] However, few studies exist that examine the difference in delivery outcomes with higher levels of obesity than BMI > 40 kg/m^2. The objective purpose of this study is to further characterize the likelihood of vaginal delivery amongst women with BMI higher than the previously classified levels of obesity.

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Presented at Unique Considerations for OB/Gyn Care in Special Populations, University of Iowa Carver College of Medicine Obstetrics and Gynecology Postgraduate Conference, 3 November 2023, Hilton Garden Inn, Iowa City, IA.