

## Postoperative Wound Infections Following Caesarean Section in Obese Patients

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**Abstract :** Introduction: Obesity, defined as a Body Mass Index (BMI) of more than or equal to 30kg/m, is associated with an increased risk of complications during pregnancy and delivery. During labour, obese mothers often require greater intervention and have higher rates of caesarean section. Despite a low overall rate of serious complications following caesarean section, a high BMI predisposes to a higher risk of postoperative complications. Our study, therefore, aimed to investigate the impact of antenatal obesity on adverse outcomes following caesarean section, particularly wound-related infections. Materials and Methods: A retrospective cohort study of all caesarean deliveries during the first quarter of a chosen year was undertaken in our hospital, which is a tertiary referral centre with > 12,000 deliveries per year. Patients' health records and data from our hospital's electronic labour and delivery database were reviewed. Data analysis was performed using the Statistical Package for the Social Sciences (SPSS), and odds ratios plus adjusted odd ratios were calculated with 95% confidence intervals (CI). Results: A total of 1829 deliveries were reviewed during our study period. Of these, 180 (9.8%) patients were obese. The rate of caesarean delivery was 48.9% in obese patients versus 28.1% in non-obese patients. Post-operatively, 17% of obese patients experienced wound infection versus 0.2% of non-obese patients. Obese patients were also more likely to experience major postpartum haemorrhage (4.6% vs. 0.2%) and postpartum pyrexia (18.2% vs. 5.0%) in comparison to non-obese patients. Conclusions: Obesity is a significant risk factor in the development of postoperative complications following caesarean section. Wound infection remains a major concern for obese patients undergoing major surgery and results in extensive morbidity during the postnatal period. Postpartum infection can prolong recovery and affect maternal mental health, leading to reduced perinatal bonding with long-term implications on breastfeeding and parenting confidence. This study supports the need for the development of standardized protocols specifically for obese patients undergoing caesarean section. Multidisciplinary team care, in conjunction with anaesthesia, family physicians, and plastic surgery counterparts, early on in the antenatal journey, may be beneficial where wound complications are anticipated and to minimize the burden of postoperative infection in obese mothers.

**Keywords :** pregnancy, obesity, caesarean, infection

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