

Straight to theatre -- should women with a high BMI be offered caesarean section routinely?

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Introduction

Maternal obesity is an increasingly common risk factor for maternal morbidity and mortality. Obesity is associated with increased caesarean section rates [1] and provides a number of anaesthetic challenges. The Centre for Maternal and Child Enquiries (CMACE) and Royal College of Obstetricians and Gynaecologists (RCOG) joint guideline [2] advises that anaesthetic assessment should occur for women with a body mass index (BMI) of $>40 \text{ kg.m}^{-2}$ so that potential difficulties with regional or general anaesthesia can be identified. For this project we looked at maternal outcomes of women with a raised BMI to see how this can guide our practice.

Methods

We conducted a retrospective study over a three year period from 16th September 2019 to 16th September 2022. The survey was done using a search of the electronic notes system searching for women with a BMI $>40 \text{ kg.m}^{-2}$. The search identified age, BMI, mode of delivery, mode of anaesthesia for operative delivery and category of caesarean section.

Results

Category of caesarean section	Number of caesarean sections	Spinal anaesthesia	Epidural top-up	Combined spinal epidural	General anaesthesia
4	150	144	1	6	0
3	70	58	6	5	3
2	163	113	43	5	4
1	25	11	5	0	9

Results

We identified a total of 780 women with an average BMI of 42.7 kg.m^{-2} . A total of 408 women had a caesarean section (52%), 335 had a spontaneous vaginal delivery (43%) and 37 had an instrumental delivery (5%).

Discussion

Our results show a high rate of caesarean section and considering the upward trend in overall rates of caesarean section this figure is likely to rise further in future. At the anaesthetic clinic women with a raised BMI should be informed about this high rate so they have a realistic idea about mode of delivery. The CMACE/RCOG guideline [2] also recommends that an obstetrician and anaesthetist at speciality trainee level 6 or above be available for delivery for these women. We wonder if this group should be offered elective caesarean sections to reduce the high risk out of hours workload and so that more senior staff would be available to provide safe care to these potentially challenging cases.

References

- 1.Chu SY, Kim SY, Schmid CH et al. Maternal obesity and risk of cesarean delivery: a meta-analysis. Obesity reviews. 2007 Sep;8(5):385-94.
- 2.CMACE/RCOG Joint Guideline Management of Women with Obesity in Pregnancy March 2010, accessed online Nov 2022, <https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines/care-of-women-with-obesity-in-pregnancy-green-top-guideline-no-72/>