Super Morbid Obesity in Pregnancy

Care and Outcomes in a Single Regional Centre

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Background and Aims

- Super morbid obesity in pregnancy is defined as BMI of 50kg/m^2 or greater calculated using the height and weight measured at the first antenatal consultation
- Obesity in pregnancy increases the risk of a number of outcomes in the antenatal, intrapartum and post-partum period and can also increase anaesthetic risks[1]
- At Ballarat Health services, in regional Victoria, the prevalence of women with booking BMI >50 has increased more than 7 times from 0.14% to 1.0% from 2016 to 2018
- Ballarat Health Services released local guidelines for the management of obesity in pregnancy in 2016 which were in line with the guidelines released by Safer Care Victoria (SCV) in 2018[2]
- We were interested to study pregnancy outcomes in this high-risk population following the introduction of these guidelines

Table 1: Summary of SCV 'Care of the woman with BMI >40' guidelines[2]

Antenatal Care
• Assess for cardiac risk factors and sleep apnoea (STOP tool)
• Assess for other comorbidities
• High dose folic acid – 5mg daily
• Growth USS at 28, 32, 36/40
• 14–16/40 – OGTT (repeat at 26/28 weeks if negative)
• Offer Lactation Consultant referral
• Refer all women for anaesthetic review
• IOL at 38-39/40
Intrapartum Care
• Notify anaesthetics & theatre of admission
• Continuous electronic fetal monitoring – FSE may be required
• Prepare for potential shoulder dystocia
• Active management of 3rd stage
• Caesarean= prophylactic antibiotics
Postpartum Care
• Thromboprophylaxis- dose appropriate for weight
• Early mobilisation
• GDM- refer for OGTT 6 weeks post-partum

Methods

Women with booking BMI >50 were identified from routinely collected hospital data. Their records were screened for antenatal care, complications and birth outcomes.

Results

34 women were identified for audit with 36 live born babies

Antenatal Care

- 67.6% of women (n= 23) were booked in before 20 weeks
- Only 14.7% (n= 5) were prescribed low dose aspirin
- 79.4% were referred to the anaesthetist pre-birth
- 29% of women developed hypertension during pregnancy
- 41% of women were diagnosed with gestational diabetes

Maternal outcomes

- 26.5% (n=9) of women had a PPH 500-1000mls and 2.9% (n=1) had a PPH >1000mls
- No maternal ICU admissions
- No perinatal mortality

Neonatal outcomes

- 34 of 36 neonates had 5 minute apgars of 7 or above
- 27.8% of neonates (n= 10) required SCN admissions
- 3 neonates (8.3%) had a birth weight below 2500gm
- 5 neonates (13.9%) had a birth weight above 4000gm

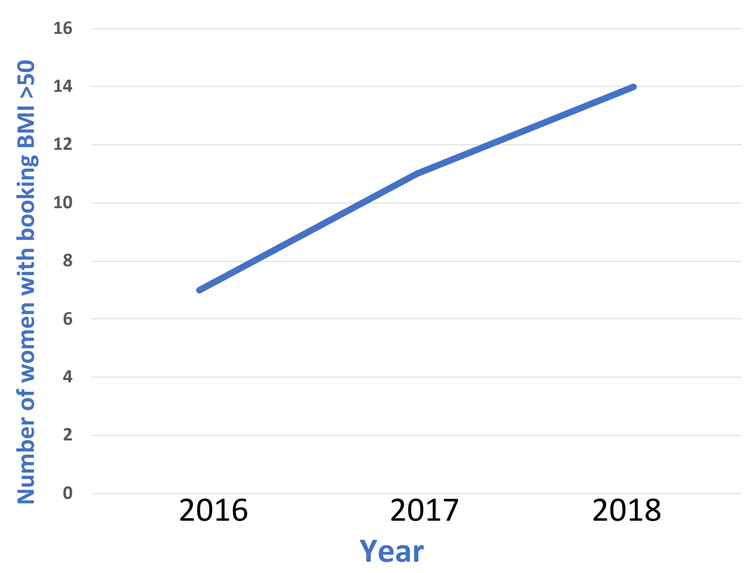
References

1. Management of Obesity in Pregnancy, RANZCOG guidelines, March 2007, C-Obs-49, Available from: https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women's%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Management-of-obesity-(C-Obs-49)-Review-March-2017.pdf?ext=.pdf
2. Obesity during pregnancy, birth and postpartum, Safer Care Victoria, November 2018, Available from: https://www.bettersafercare.vic.gov.au/resources/clinical-guidance/maternity-ehandbook/obesity-during-pregnancy-birth-and-postpartum#goto-references

Table 2: Delivery timing and mode

Deliveries	n=	Percentage
Preterm <37/40	5	14.7%
Delivered by 39+0	29	85.3%
Pre-labour CS	13	38.2%
Attempted labour	21	61.8%
Number induced (of labouring)	19	90.5%
→ Progressed to vaginal delivery (NVD + instrumental)	15	71.4%
→Progressed to normal vaginal delivery	12	57.1%
→ Progressed to instrumental	3	14.3%
Total CS rate	19	55.9%

Graph 1: Women with booking BMI >50 at BHS



Conclusions

- Super morbid obesity in pregnancy had good maternal and neonatal outcomes in this single regional centre over 3 years
- This may be due to the introduction of dedicated guidelines and a high rate of elective delivery by 39+0 weeks
- A more extensive audit of all women with BMI>40 (Obese Class III) is planned

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