

Postnatal readmissions in morbidly obese women: a retrospective single-centre study

Dong Li, Sarah Prince

Department of Obstetrics and Gynaecology, The Princess Alexandra Hospital NHS Trust, Harlow, UK



The Princess Alexandra
Hospital
NHS Trust

Background

Obesity is becoming increasingly prevalent in the UK antenatal population and associated with adverse maternal outcomes, including unplanned postnatal readmissions.

Aim: To examine the rate of and reasons for postnatal readmissions and revisits among women with morbid obesity (BMI of 40 or more) at Princess Alexandra Hospital (PAH).

Method

A **retrospective** single-centre **observational** study.

All women with a **booking BMI of 40 or more who delivered a singleton baby after 37 weeks** at PAH from August 2020 to July 2021 were included. Information on the booking characteristics and pregnancy outcomes was obtained from electronic clinical records. All women were followed up to 42 days after delivery.

Outcomes were 1) **readmission** - an unplanned overnight admission; 2) **revisit** - an emergency attendance to Emergency Department, Gynaecology Ambulatory Unit or the Labour Ward.

Maternal, pregnancy, and delivery characteristics were compared between the non-readmitted/revisited and the readmitted/revisited groups using 2-sided t-tests for continuous variables and chi-square tests for categorical variables.

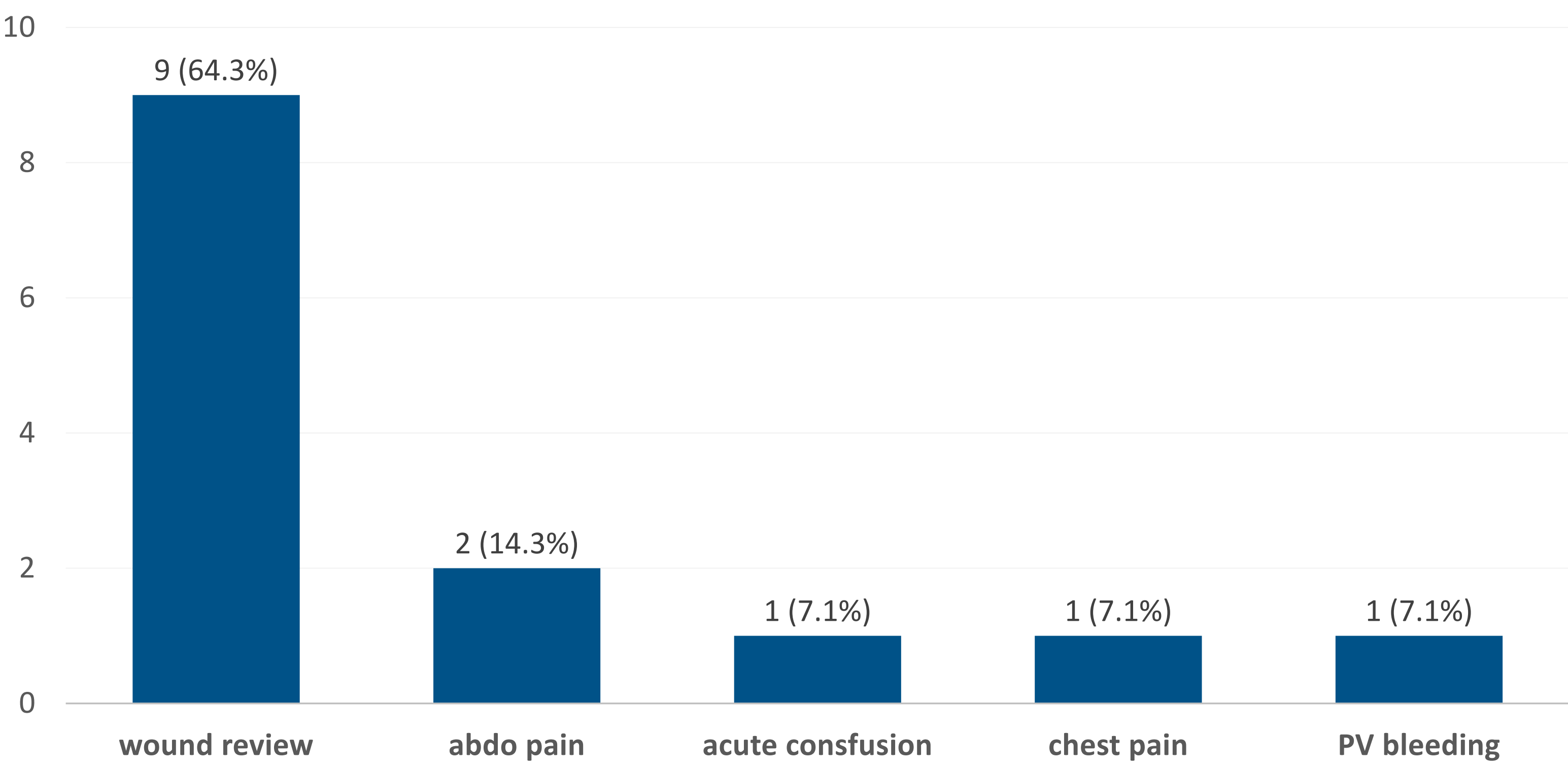


Figure 1 Reasons for postnatal revisit in morbidly obese women

Results

A total of 74 women were included in this study of which 69 (93%) were white. The mean age (SD) was 30.9±4.5 years and the mean BMI (SD) was 43.4±3.0. Notably, 42 (56.8%) women included had a caesarean birth.

- 1/74 (1.4%) case was readmitted for 4 days for urosepsis.
- 7/74 (9.5%) had 14 episodes of revisits with the reasons showing in **Figure 1**.
- As the **Table 1** shows, Those who revisited/readmitted are more likely to be **current smokers**.
- Also, the rate of having had a **caesarean birth** appeared to be higher in women who had revisits/readmissions (85.7% versus 53.7%, *not statistically significant*).

Table 1 Characteristics of women with versus without readmission/revisit*

	No readmission/revisit (n=67)	Readmission/revisit (n=7)	P value
Maternal age	31.13 (0.55)	28.71 (1.51)	0.173
Booking BMI (kg/m²)	43.37 (0.37)	44.07 (0.88)	0.564
BMI >=40	51 (76.1)	5 (71.4)	
BMI >=45	14 (20.9)	2 (28.6)	
BMI >=50	2 (3.0)	0 (0.0)	
Ethnicity			0.756
White	62 (92.5)	7 (100.0)	
Mixed	4 (6.0)	0 (0.0)	
Other	1 (1.5)	0 (0.0)	
Smoking			0.023
Current smoker	6 (9.0)	3 (42.9)	
Ex-smoker	29 (43.4)	3 (42.9)	
Never smoked	32 (47.8)	1 (14.2)	
Mode of delivery			0.131
Vaginal delivery	31 (46.3)	1 (14.3)	
Caesarean	36 (53.7)	6 (85.7)	

*Data are presented as number (percentage) or mean (standard deviation) where appropriate.

Conclusion

- The postnatal readmission rate among women with morbid obesity at PAH is lower than the level reported by the National Maternity and Perinatal Audit (1.4% versus 4.9%).
- Nearly 10% of this group of women revisited hospital for which wound infection following caesareans was the commonest reason.
- Further local initiatives, for instance smoking cessation and better wound care after caesarean sections suggested by NICE guidelines, should be taken among these women to reduce the risk of postnatal revisit/readmission.



dong.li1@nhs.net