

Secondary Postpartum Haemorrhage: Who is at Risk?

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Introduction

Secondary postpartum haemorrhage (SPPH) refers to any abnormal vaginal bleeding between 24 hours to 6 weeks postpartum. There is limited evidence in the literature regarding SPPH, especially regarding risk factors. The aim of this study is to identify the risk factors for SPPH.

Method

OBSDATA (obstetric and perinatal database) was retrospectively accessed to identify patients that were re-admitted with a diagnosis of SPPH within 6 weeks of delivery between 2014 and 2018 at Royal Brisbane and Women's Hospital.

A total of 111 cases of SPPH were identified. 225 cases that did not have SPPH were randomly allocated as controls. Multiple factors were examined such as demographic, medical conditions including gynaecological, antenatal, intrapartum and post-natal factors. Logistic regression analyses were applied for categorical variables and T-test for continuous variables.

Results

Table 1: Cross tabulation of SPPH cases and controls to identify potential risk factors related to SPPH

Variables	Control (N=225)	SPPH Cases (N=111)	p-value
Age	30	31	0.21
Ethnicity			0.43
BMI	23	23	0.45
Smoking	28 (12%)	13 (12%)	0.94
Drugs	5 (2%)	5 (5%)	0.24
Plurality			0.071
Gestation at delivery	39 (38-40)	39 (37-40)	0.32
Gravida	2 (1-3)	2 (1-3)	0.39
Parity	1 (0-1)	1 (0-1)	0.8
Antenatal anticoagulation	4 (2%)	9 (8%)	0.004
Previous obstetrics complications	28 (12%)	24 (22%)	0.036
Previous miscarriage	70 (31%)	43 (39%)	0.18
GBS	8 (4%)	7 (6%)	0.27
Decreased fetal movements	58 (26%)	30 (27%)	0.79
IOL	101 (45%)	57 (52%)	0.23
Labour duration	140 (0-368)	212 (0-420)	0.2
Active third stage	208 (93%)	107 (97%)	0.1
Incomplete placenta	5 (2%)	10 (9%)	0.005

Variables	Control (N=225)	Case (N=110)	p-value
Primary PPH	35 (16%)	23 (21%)	0.22
EBL<24HRS	300 (200-450)	350 (250-500)	0.038
Postpartum anticoagulation	95 (42%)	30 (27%)	0.008

Discussion

Demographic factors of age and ethnicity did not express any predisposition to SPPH along with other factors such as BMI, parity and plurality. Mode of delivery and primary postpartum haemorrhage were also not statistically significant. The average estimated blood loss within 24 hours of delivery in the SPPH case group was 350ml and control group was 300ml (p=0.038). This study identified previous obstetric complications, antepartum and postpartum anticoagulation and incomplete placenta as statistically significant risk factors for SPPH. Thus, indicating that secondary postpartum haemorrhage can be anticipated early and potentially prevented.

References

1. Marchant S, Alexander J, Thomas P, et al. Risk factors for hospital admission related to excessive and/or prolonged postpartum vaginal blood loss after the first 24 h following childbirth. *Pediatr Perinat Epidemiol.* 2006;20:392-402.
2. Debost-Légrand A, Revie O, Dossou M, Venditelli F. Risk factors for severe secondary postpartum hemorrhages: a historical cohort study. *Birth.* 2015 Sep;42(3):235-41. Doi: 10.1111/birt.12175.
3. Feigenberg T, Eitan Y, Sela H, Elchalal U, Ben-Meir A, Rojansky N. Surgical versus medical treatment for secondary post-partum hemorrhage. *Acta Obstet Gynecol.* 2009;88:909-913.