Secondary postpartum haemorrhage following caesareans: causes, management and outcomes

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Introduction
Secondary postpartum haemorrhage (SPPH) refers to any abnormal vaginal bleeding between 24 hours to 6 weeks. SPPH is a relatively unexplored issue and has limited evidence especially pertaining to caesareans. The aim of this study was to provide insight into common causes and management of SPPH post caesarean section.

Method
OBSDATA (RBWH obstetric and perinatal database) was accessed to identify patients re-admitted with SPPH within 6 weeks of delivery between 2014 and 2018 at Royal Brisbane and Women’s Hospital. This study included all women who gave birth after 20-weeks gestation or delivered a fetus above 400g.

Pelvic ultrasound was the primary imaging choice to investigate causes of SPPH with 24 (80%) patients undergoing a scan. 100% of patients with retained products of conception (RPOC) had a positive USS finding suggestive of RPOC.

SPPH in this cohort was managed with either medical or surgical intervention. Of the 15 cases that were medically managed, 14 (93%) received oral antibiotics, 8 (53%) intravenous antibiotics and 3 (20%) received uterotonic. Tranexamic acid was not used in any of the medically managed cases.

Of the 15 patients that underwent surgical intervention, products of conception were histologically confirmed in 11 (73%) cases, with 4 (27%) cases not showing any histological evidence of retained products. The average length of stay was 2.46 days for the surgical group and 1.26 days for the medically managed group.

Fig. 1. Causes of SPPH post caesarean section

Pelvic ultrasound was the primary imaging choice to investigate causes of SPPH with 24 (80%) patients undergoing a scan. 100% of patients with retained products of conception (RPOC) had a positive USS finding suggestive of RPOC.

Fig. 2. Methods of surgical management

Retained products of conception appears to be the predominant cause of SPPH in this cohort. This finding indicates that occurrence of SPPH in caesarean deliveries is largely preventable, requiring a thorough exploration and evacuation of the uterine cavity intraoperatively. Additionally, management of haemorrhage was dependent on the cause of SPPH. RPOC was predominantly surgically managed whereas endometritis was medically managed.

Results
A total of 111 women were re-admitted with SPPH and of these, 30 women underwent caesarean sections. 10 (33%) were emergency caesareans and 20 (67%) elective caesareans.

Table 1. Frequency and percentage of management options for causes of SPPH

<table>
<thead>
<tr>
<th>Causes of SPPH</th>
<th>Surgical Management</th>
<th>Medical Management</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPOC</td>
<td>13 (77%)</td>
<td>4 (23%)</td>
<td>17</td>
</tr>
<tr>
<td>Endometritis</td>
<td>1 (12%)</td>
<td>8 (88%)</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>1 (25%)</td>
<td>3 (75%)</td>
<td>4</td>
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Conclusion
Retained products of conception appears to be the predominant cause of SPPH in this cohort. This finding indicates that occurrence of SPPH in caesarean deliveries is largely preventable, requiring a thorough exploration and evacuation of the uterine cavity intraoperatively. Additionally, management of haemorrhage was dependent on the cause of SPPH. RPOC was predominantly surgically managed whereas endometritis was medically managed.

References