

# A Retrospective Study of Secondary Postpartum Haemorrhage at BRIMS, Bidar

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## Abstract

**Objectives:** To assess the incidence, clinical features, investigations and management of secondary postpartum Haemorrhage (PPH). **Methods:** A retrospective analysis of 50 cases who presented at BRIMS, Bidar with secondary PPH was carried out. **Results:** The incidence of secondary PPH was 0.71%. Eight of these women also had primary PPH due to atonic uterus. In 0.14% of cases secondary PPH occurred during the second postpartum week. Sonography findings were suggestive of retained products of conception in 10 cases. Eighty-six percent of women responded to conservative line of management and 14% required surgical evacuation. Only in 50% of cases, the ultrasound diagnosis of retained products was confirmed by histology. **Conclusion:** Complete blood count should be done for all secondary PPH patients. Midwifery training for third stage of labour is must. Per speculum examination is must in developing country like INDIA. Role of ultrasound is debatable. Unnecessary operative procedures on the puerperal uterus should be avoided. Curettage material should be sent for histopathology.

**Keywords:** secondary postpartum puerperal Haemorrhage.

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## INTRODUCTION

Secondary postpartum Haemorrhage (PPH) is defined as excessive bleeding from the uterus occurring 24 hours to 6 weeks after delivery. In the diagnosis of secondary PPH, there is no quantifying factor in the amount of blood loss and it is a subjective impression of an increase in the amount of bleeding after 24 hours following delivery. The common causes of secondary PPH include retained products of conception and / or infection<sup>1</sup> and rarer causes include infection and dehiscence of cesarean section scar, choriocarcinoma and hematological disorders such as thrombocytopenia and Von Willebrand's disease. In the present day practice ultrasound is being routinely used in the diagnosis of retained products of conception.

However its use in PPH is controversial as the organized blood clots and deciduas are difficult to distinguish from retained products. This study was undertaken to assess the incidence of secondary PPH and to analyse the clinical features, bacteriological and ultrasonic investigations and management of 50 cases who presented with secondary PPH in BRIMS, Bidar.

## MATERIALS AND METHODS

Fifty cases presented between Dec 2013 and Nov 2014 with secondary PPH. During the above period, there were 7000 deliveries. The records of these 50 patients were analyzed with regards to antenatal and labor profile, investigations and management. The predictability of obstetric events and investigations in diagnosing retained products was also studied, using 't' test, for statistical analysis.

## RESULTS

The incidence of secondary PPH in this study was 0.7%. There were 10 (32%) primiparas and 21 (68%) multiparas; the mean age was 27 years and 5 months. There was a previous history of miscarriage in seven cases (14%) and of termination of pregnancy in five cases (10%). A history of primary PPH in previous pregnancies

was present in 8 women. Antenatal problems such as preeclampsia, IUGR, APH, multiple pregnancy and diabetes were seen in 6 cases (12%). 30 (60%) delivered between 37 and 42 weeks of gestation and one woman had pre-term delivery at 34 weeks. 18 (36%) women had normal vaginal delivery, 4 (8%) were delivered by ventouse and 30 (60) by caesarean section. Of the 18 cases who had vaginal delivery, placenta was removed by controlled cord traction in 15 cases and 3 case needed manual removal of placenta under anesthesia. Placenta was reported as complete in all the 50 cases, however, the membranes appeared ragged and incomplete in 4 cases. Eight women had primary PPH due to atonic uterus. When they presented with secondary PPH, six were managed conservatively and two required surgical evacuation, and the presence of placental tissue was confirmed histologically in both these cases. In fifteen cases (.21%) secondary PPH occurred during the first week. In 10 (0.14%) during the second week, in one (.01%) during the third week, in one (0.01%) during the fourth week and in three (0.04%) during the sixth week (Table I). Of the thirty women who underwent cesarean section, in three secondary PPH occurred in the sixth week and sonography revealed retained products in two of these. One of them was managed conservatively. The other was taken for surgical evacuation, as there was perforation of uterus procedure converted to total abdominal hysterectomy. Post operative period was uneventful. One patient who had caesarean section for placenta praevia (clinically diagnosed) had secondary PPH, cause found was carcinoma cervix on sixth post operative week. Referred to higher center for further radiotherapy. One patient delivered vaginally in the periphery of Bidar referred to BRIMS, Bidar in view of PPH. On admission she was in hypovolemic shock, which was corrected and retained products removed by gentle suction curettage, could not revive the patient (was in irreversible shock). High vaginal swab and full blood count were carried out in all the 50 patients and there was evidence of infection in ten and all of them were positive for anaerobes. While awaiting the culture result, all were given either amoxicillin with clavulanic acid (augmentin) or cephelexin and metronidazole. Ultrasound scanning was carried out on all women. In forty cases, USG did not show evidence of retained products. Therefore, they were managed conservatively with antibiotics and oxytocics. Sonography findings were suggestive of retained products in 10 cases (20%). In eight cases of FTND they had low platelets (or subnormal) on complete blood count. The overall management outcome was that 86% responded to conservative management and 14% required surgical evacuation. No major postoperative complications except iatrogenic perforation of uterus which was managed by

TAH. Four patients (8%) necessitated blood transfusion because of heavy bleeding either before or at the time of evacuation. In eight patients who had primary PPH, evacuation was carried out in two cases and retained products were confirmed in both these cases (100%). Of the ten cases who were positive for infection, the incidence of retained products in the curettage examined was 50% and it was 39% when there was no evidence of infection.

**Table 1: Day of onset of bleeding**

Days	No.	%
4 – 7	15	0.21%
8 – 14	10	0.14%
15 – 21	1	0.01%
22 – 28	1	0.01%
29 – 35	0	0%
36 – 42	3	0.04%

**Table 2: Correlation between sonography findings and histology**

Sonography	Retained products seen on histology			
	Yes		No	
	No.	%	No.	%
Retained Products seen in 10	5	50%	5	50%

## DISCUSSION

The incidence of secondary PPH in our study was 0.71%. The study of Rome<sup>2</sup> showed an incidence of 1.29% and Hoveyda and Mackenzie<sup>3</sup> reported an incidence of 0.8%. There are no definitive risk factors that could predict the presence of retained products and secondary PPH. Study by Rome<sup>2</sup> showed a positive correlation between puerperal morbidity and primary PPH with the presence of retained products. However King et al<sup>4</sup> studied 83 patients with secondary PPH and did not identify any predictive antenatal or obstetric factors. Recent study by Hoveyda and Mackenzie<sup>3</sup> showed a seven fold increase rate with a history of primary PPH and a fourfold increase rate with a history of manual removal of a retained placenta. In our analysis, though primary PPH showed a positive correlation with secondary PPH, this was not statistically significant, because of small numbers. The use of ultrasound in diagnosing the cause of PPH is controversial as organized clots are difficult to differentiate from the retained products. In our analysis, only in 50% of cases the ultrasound diagnosis of retained products was confirmed by histology. Our experience was similar to that of King et al<sup>4</sup> and Hoveyda and Mackenzie<sup>3</sup>. In a study by Malvern et al<sup>5</sup>, the false positive result in the diagnosis of retained products was 17% and, the false negative result was 1.7%; the ultrasound was more accurate in excluding the retained

products of conception. The management of secondary PPH is a clinical dilemma. In our study, the retained products were seen only in 5 of the 10 cases who had surgical evacuation. The risk of operative morbidity such as perforation of the uterus and severe Haemorrhage associated with the surgical procedure cannot be ignored. Because of these risks, patients presenting with mild bleedings should be treated conservatively with oxytocics and antibiotics. Only if the bleeding persists inspite of conservative management or if there is heavy bleeding, surgical evacuation should be carried out. Caution should be exercised in the management of the secondary PPH following caesarean section. These cases are unlikely to be associated with retained products and the operative procedure on the uterus may be dangerous. In cases where heavy bleeding occurs 2-3 weeks following caesarean section, either non-healing of the uterine incision or dehiscence of the scar following infection should be thought of<sup>6</sup>. Though the incidence of secondary PPH is low, it is one of the causes of maternal morbidity. As there seem to be no definite risk factors to identify retained products and the rate of false positive diagnosis with sonography is high, management should probably be guided by the clinical presentation. Compulsory per speculum examination should be done to rule out

carcinoma cervix. Midwifery training for third stage management should be done, to ensure complete and ensac removal of placenta. Complete blood count should be done for all primary and secondary PPH to exclude low platelets. Unnecessary operative procedure on the puerperal uterus should be avoided and caution should be taken in managing cases following caesarean section. It is important that all curettage should be sent for histology to pick up an occasion case of choriocarcinoma.

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