



# Clinical Presentation of Patients Admitted with Retained Placenta: Study in Dhaka Medical College Hospital, Dhaka, Bangladesh

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**Abstract:** Introduction: Retained placenta is one of the causes of postpartum haemorrhage in Bangladesh as it is worldwide and a common problem faced by the department of obstetrics. Objective: To determine the clinical presentation of patients admitted with retained placenta at the Dhaka Medical College Hospital, Dhaka, Bangladesh. Material & Methods: This was a cross-sectional study which was carried out in the department of Obstetrics and Gynaecology, Dhaka Medical College Hospital (DMCH), Dhaka, Bangladesh, during the study period from January 2010 to June 2010. A total number of 50 cases were selected for the study. The data were collected by pre-designed questionnaire; relevant information was collected by direct interview of patients and relatives. Statistical analyses were carried out by using the Statistical Package for Social Sciences version 16.0 for Windows (SPSS). Results: Mean age was found 27.04±3.48 years with range from 20 to 36 years. Home delivery was found in 31 (62.0%). Mean duration of retained placenta was found 3.0±0.58hrs with range from 2.30 to 4.3hrs. Mild per vaginal bleeding was found 4 (8.0%), Moderate P/V bleeding was 42 (84.0%) and severe bleeding was 4 (8.0%). Regarding past history, patients with myomectomy was found 1 (2.0%), cesarean was 3 (6.0%). H/O retained placenta was 9 (18.0%). H/O MR was 24 (48.0%) and D&C was 18 (36.0%). Primi para was found 2 (4.0%) and multi para was 48 (96.0%). Moderate anaemia was found 41 (82.0), normal temperature was 49 (98.0%), mean pulse was 91.0±8.13 beats/min mean systolic BP was found 91.9±6.81 mmHg and mean diastolic BP was 57.6±5.55mmHg. From P/A examination of the study patients it was found that, atonic uterus was 29 (58.0%), tenderness was 2 (4.0%), more than three fourth 76% was with full urinary bladder, mean height of uterus was 22.24±1.6 weeks. Moderate per vaginal bleeding was 41 (82.0%), vaginal full with clot was 41 (82.0%) and OS was open in 46 (92.0%). Mean Hb% was found 8.25±0.85 gm/dl with range from 7 to 9.2gm/dl. Conclusion: The incidence and severity may be decreased by health education, women empowerment and the provision of facilities for essential obstetrics services by high skilled health care providers in ensuring a properly conducted delivery with discharged after timely effective management.

**Keywords:** Hemorrhage, Retained Placenta, Clinical Presentation

## 1. Introduction

Retained placenta is one of the causes of postpartum

haemorrhage in Bangladesh as it is worldwide and a common problem faced by the department of obstetrics. The placenta is said to be retained when it is not expelled out even in 30 minutes after birth of a baby [1]. The commonest single

preventable cause is postpartum haemorrhage which is responsible for 26% maternal death in Bangladesh. Though there are few numbers of studies touched upon retained placenta in Bangladesh but findings from international studies and clinical research show the appropriate and adequate management during emergency maternity care. The present study attempts to show the management of the patients who will be admitted with the retained placenta at Dhaka Medical College Hospital. It is assumed that if timely and appropriate measures can be taken, maternal mortality due to retained placenta can be reduced to a great extent and can offer better quality of life. Retained placenta is potentially life-threatening not only because of retention *per se*, but because of associated haemorrhage and infection as well as complications related to its removal [2]. These risks are increased in women in poor social circumstances due to pre-existing, malnutrition, anaemia and unsupervised home deliveries. Incidence of retained placenta has been 0.23% of all births over 15 years. Of the deliveries at Kasturba Hospital, the incidence of retained placenta was 0.008% (two of 23 838 vaginal deliveries). Sixty-five women were admitted with retained placenta after home deliveries and three after delivery at other hospitals. The age of most of the patients was between 20 and 29 years and most were para 2 or 3. In twenty-three (32.4) cases, women had delivered preterm. Twelve (16.9%) women had previous uterine surgery and 10 (14.1%) had had a retained placenta in the past. Twenty-six (36.61%) women had come in a state of severe shock. One woman with an adherent placenta had to undergo hysterectomy (1.40%). The maternal mortality was 5.6%. Perinatal loss was 7.04%. It is unfortunate that of the four deaths, two women had actually delivered at a nearby district hospital and were referred moribund and died. A properly conducted delivery can reduce the incidence of retained placenta and if retention occurs, timely appropriate treatment can save life. Nikolajsen *et al* [3] estimated the prevalence and validate the diagnosis of retained placenta in nulliparous women and the risk of re-occurrence at subsequent vaginal delivery. A total of 10334 nulliparous singleton pregnancies who delivered vaginally at the hospital during 2000-2009. Data from a computerized database information system were used to identify 287 women who had an ICD-10 diagnosis of retained placenta and 572 randomly selected controls matched by the date of first delivery. At chart review the diagnosis was confirmed by: 1. Excessive bleeding >30 minutes after delivery without placental separation; 2. Placenta not separated 30 minutes after delivery or; 3. Confirmation of retained placenta tissue >2 hours postpartum. Confirmation of the diagnosis and prevalence of retained placenta. Risk of re-occurrence in a subsequent vaginal delivery. The prevalence of retained placenta increased from 2.8 to 7.0% after confirmation according to the set of criteria. Of the selected women, 48.4% had a subsequent vaginal delivery. Of these women, 25.3% (23/91) with a previous retained placenta and 5.3% (11/206) without previously retained placenta, experienced retained placenta in subsequent delivery. The correspondents to an adjusted odds ratio of 5.5 (95% confidence interval 2.6-12.7) in the

multivariate analysis for recurrence of retained placenta in a subsequent vaginal delivery. The use of the ICD-10 diagnosis of retained placenta is significantly increased in a subsequent vaginal delivery. Retained placenta is associated with morbidity and mortality when left untreated. Eifediyi *et al* [4] done a study determined the occurrence of retained placenta in their setting as well as to ascertain the possible risk factors, morbidities and mortality. Their study was a retrospective review of all cases of retained placenta over a three-year period. There were 3542 deliveries, and of which 64 cases were of retained placenta. The incidence of retained placenta was 1.8% of all deliveries with a higher incidence in unlooked patients and a case fatality of 3.12%. The commonest complication was postpartum haemorrhage in 51 (79.68%) of cases with blood transfusion rate of 47%. Complications associated with retained placenta could be reduced by adequate utilization of health care facilities with manned by skilled attendants; availability of blood transfusion services as well as effective and safe anesthesia. This study intends to determine the clinical presentation of the patients admitted with retained placenta at the Dhaka Medical College Hospital, Dhaka, Bangladesh.

## 2. Methodology and Materials

This was a cross-sectional study which was carried out in the department of Obstetrics and Gynaecology, Dhaka Medical College Hospital (DMCH), Dhaka, Bangladesh during the study period from January 2010-June 2010. A total number of 50 cases were selected for the study. The data were collected by pre-designed questionnaire; relevant information was collected by direct interview of patients and relatives. Statistical analyses were carried out by using the Statistical Package for Social Sciences version 16.0 for Windows (SPSS). The mean values were calculated for continuous variables. The quantitative observations were analyzed by frequencies and percentages. The aims and objective of the study along with its procedure, risk and benefits was explained to the patients with easily understandable local language and then informed consent was taken from each patient. It was assured that all records were kept confidential and the procedure was helpful for both the physician and patients in making rational approach regarding management of the case.

### Inclusion Criteria

Patients who presented with retained placenta in Dhaka Medical College Hospital (DMCH).

### Exclusion Criteria

Patients who refused to give consent

Patients developed retained placenta at Dhaka Medical College Hospital (DMCH)

## 3. Results

A total of 50 patients were included in this study, maximum 28 (56.0%) patients age belonged to 26-30 years and mean age was found 27.04±3.48 years with range from 20 to 36 years (Table 1). Table 2 shows chief complaints of the study patients;

home delivery was found in 31 (62.0%). Mean duration of retained placenta was found  $3.0 \pm 0.58$  hrs with range from 2.30 to 4.3 hrs. Mild per vaginal bleeding was found 4 (8.0%), Moderate P/V bleeding was 42 (84.0%) and severe bleeding was 4 (8.0%). Regarding past history, patients with myomectomy was found 1 (2.0%), cesarean was 3 (6.0%). H/O retained placenta was 9 (18.0%). H/O MR was 24 (48.0%) and D&C was 18 (36.0%) (Table 3). Figure 1 Shows the regarding the para of the study patients that describes, primi para was found 2 (4.0%) and multi para was 48 (96.0%) Table 4 shows the general examination of the study patients, where moderate anaemia was found 41 (82.0%), normal temperature was 49 (98.0%), mean pulse was  $91.0 \pm 8.13$  beats/min mean systolic BP was  $91.9 \pm 6.81$  mmHg and mean diastolic BP was  $57.6 \pm 5.55$  mmHg. Regarding P/A examination of the study patients, atonic uterus was 29 (58.0%), tenderness was 2 (4.0%), more than three fourth 76% was with full urinary bladder, mean height of uterus was  $22.24 \pm 1.6$  weeks. Table 5: shows the per vaginal examination of study patients, moderate per vaginal bleeding was 41 (82.0%), vaginal full with clot

was 41 (82.0%) and OS was open in 46 (92.0%) (Table 6). Mean Hb% was found  $8.25 \pm 0.85$  gm/dl with range from 7 to 9.2 gm/dl which is shown in Table 7. Figure 2 shows Bar diagram showing the diagnosis of the study patients that describes, retained placenta with PPH shock was 26 (52.0%), retained placenta with PPH without shock was 20 (40.0%) and retained placenta without PPH was 4 (8.0%). Table 8 shows all patients were managed with antibiotics, among them injection ciprofloxacin and injection metronidazole were 38 (76.0%). 47 (94.0%) with blood transfusion, oxytocin with 49 (98.0%), prostaglandin given to 48 (96.0%) and controlled cord traction was done in 3 (6.0%). Table 9 shows the surgical management of the studied patients that describes, manual removal was done in 47 (94.0%), deep sedation was given in 24 (48.0%), analgesia was given in 6 (12.0%) and anesthesia was given to 23 (46.0%). Hysterectomy was 1 (2.0%) due to uncontrolled PPH. Bar diagram showing the management of complications of the study patients describes, Balloon catheter was given to 11 (22.0%), prostaglandins tab was given to 14 (28.0%) and oxytocin injection was given to 14 (28.0%) (Figure 3).

**Table 1.** Age distribution of the study patients (n=50).

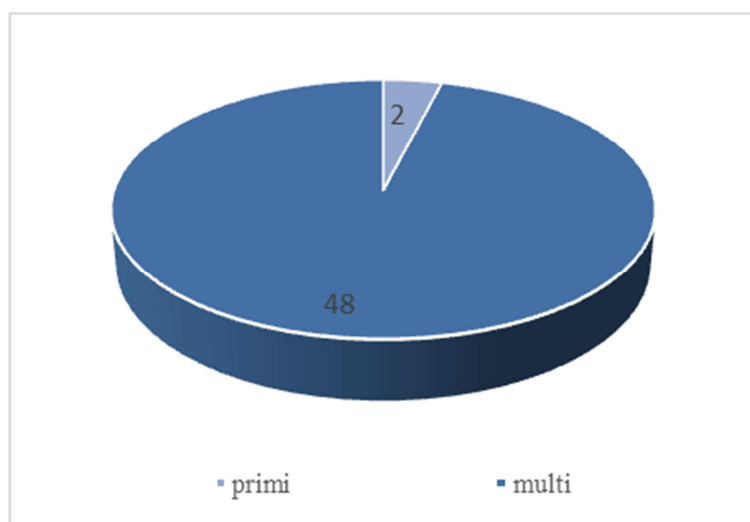
Age (in years)	Numbers of patients	Percentage
20-25	16	32.0
26-30	28	56.0
>30	6	12.0
Mean $\pm$ SD		$27.04 \pm 3.48$
Range (min-max)		(20-36)

**Table 2.** Distribution of the study patients according to chief complaints (n=50).

Chief complaints	Number of patients	Percentage
History of delivery		
Home	31	62.0
Hospital (from outside)	9	18.0
Others (clinic)	10	20.0
Duration of retained placenta (hrs.)		
Mean $\pm$ SD	$3.0 \pm 0.58$	
Range (min-max)	(2.30-4.3)	
P/V bleeding		
Mild	4	8.0
Moderate	42	84.0
severe	4	8.0

**Table 3.** Distribution of the study patients according to past history (n=50).

History of the pat history	Number of the patients	Percentage
Surgery on uterus		
Myomectomy	1	2.0
Cesarean section	3	6.0
No	46	92.0
Retained placenta		
Yes	9	18.0
No	41	82.0
MR/D&C		
MR	24	48.0
D&C	18	36.0
No	8	16.0



**Figure 1.** Pie chart showing the parity of the study patients (n=50).

**Table 4.** Distribution of the study patients according to general examination (n=50).

General examination	Number of patients	Percentage
Anaemia		
Mild	4	8.0
Moderate	41	82.0
Severe	5	10.0
Temp		
Raised	1	2.0
Normal	49	98.0
Pulse (beats/min)		
Mean	91.6±8.13	
Range (min-max)	(72-120)	
Blood pressure (mmHg)		
Mean systolic BP	91.6±6.81	
Range	(80-110)	
Mean diastolic BP	57.6±5.55	
Range	(40-70)	

**Table 5.** Distribution of the study patients according to the P/A examination (n=50).

P/A examination	Number of patients	Percentage
Feeling of uterus		
Soft	29	58.0
Firm	21	42.0
Tenderness		
Yes	2	4.0
No	48	96.0
Urinary bladder		
Full	38	76.0
Empty	12	24.0

Height uterus		
Mean (weeks)	22.24±1.6	
Range (min-max)	(20-24)	

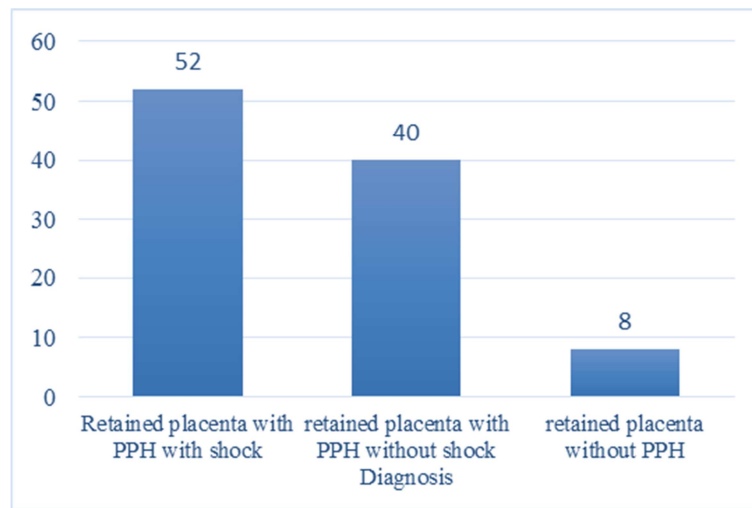
**Table 6.** Distribution of the study patients according to P/V examination (n=50).

P/V examination	Number of patients	Percentage
Per vaginal bleeding		
Mild	5	10.0
Moderate	41	82.0
Severe	3	6.0
Vagina		
Full with clot	41	82.0
Empty	7	14.0

P/V examination	Number of patients	Percentage
Tear	2	4.0
OS		
Open	46	92.0
Close	4	8.0

**Table 7.** Distribution of the study patients according to investigation (n=50).

Hb% (gm/dl)	
Mean $\pm$ SD	8.25 $\pm$ 0.85
Range (min-max)	(7-9.2)



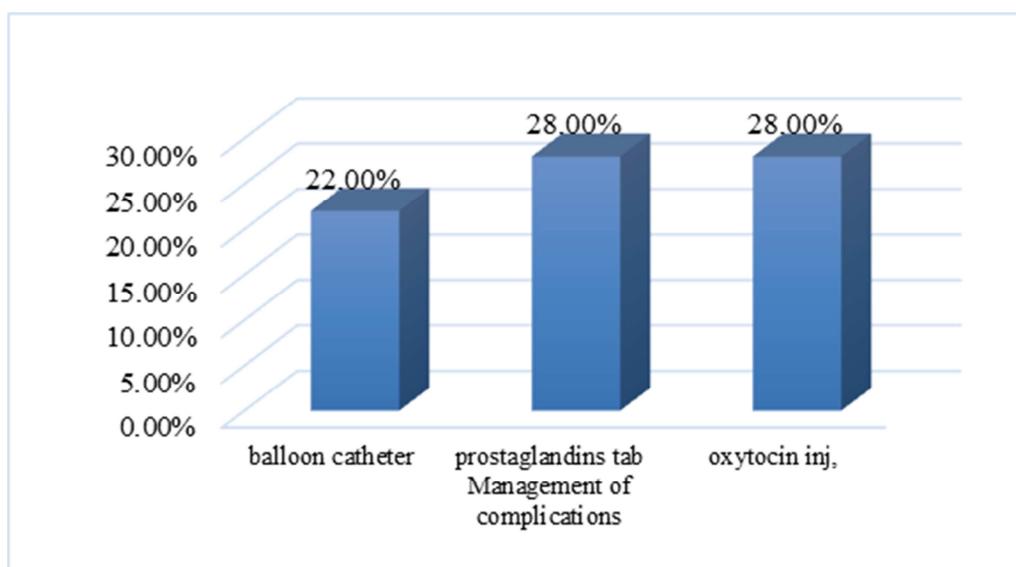
**Figure 2.** Bar diagram showing the diagnosis of the study patients. (n=50).

**Table 8.** Distribution of the study patients according to general management (n=50).

General management	Number of patients	Percentage
Antibiotics		
No	0	0.0
Yes	50	100.0
Injection, ciprofloxacin, injection metronidazole	38	76.0
Injection Amoxicillin, Injection metronidazole	8	16.0
Injection Ceftriaxone, Injection Metronidazole.	4	8.0
Blood transfusion		
Yes	47	94.0
No	3	6.0
Oxytocin		
Yes	49	98.0
No	1	2.0
Prostaglandin		
Yes	48	96.0
No	2	4.0
Controlled cord traction		
Yes	3	6.0
No	47	94.0

**Table 9.** Distribution of the study patients according to surgical management (n=50).

Surgical management	Number of patients	Percentage
Manual removal		
No	3	6.0
Yes	47	94.0
Deep sedation	24	48.0
Analgesia	6	12.0
Anesthesia (G/A)	23	46.0
Hysterectomy		
Yes		2.0
No		96.0



**Figure 3.** Distribution of the study patients according to management of complication (n=50).

## 4. Discussion

This cross-sectional study was carried out with an aim to determine the clinical feature, incidence of retained placenta and to identify appropriate intervention as well as to establish that timely appropriate treatment can reduce the maternal mortality from retained placenta. In this current study it was observed that, a total of 50 patients with retained placenta were included in this study, more than a half (56%) of the patients were in 26-30 years and the mean age was found  $27.04 \pm 3.48$  years ranged from 20 to 36 years, which is consistent with Panpaprai & Boriboonhirunsarn (2007) and Soltan & Khashoggi (1997) studies [5, 6], where the authors showed the mean age of their patients having retained placenta were  $29.3 \pm 6.4$  years and  $28.36 \pm 5.9$  years respectively. Similarly, Owolabi et al [7] and Chhabra & Dhorey found that most of their patients with retained placenta were in 3<sup>rd</sup> decade, which are closely resembled with the current study. In this series it was observed that almost two third (62.0%) patients were delivered at home and 18.0% patients were delivered in Hospital. Chhabra and Dhorey [8] showed 91.54% women were admitted with retained placenta after home delivery, 8.45% women had hospital deliveries. In our country Bhowmik [9] observed 82.0% respondents were delivered at home & 18.0% respondents were delivered in Hospital, which are comparable with the current study. History of previous retained placenta increased the chances of having retained placenta by 29-fold in a subsequent birth. It is possible that the risk factors that were responsible for previous retained placenta may persist in subsequent pregnancies. Regarding past history of the patients it was observed in this current series that, myomectomy was found 2.0%, cesarean section 6.0%, H/O retained placenta 18.0%, H/O MR 48.0% and D&C was in 36.0%. It seems that over curettage and infection after MR can be a probable pre-disposing factor of RP. A retrospective study by Beckhuzen et al [10] showed that the recurrence of RP was 32, while placenta accrete and a history of multiple RPs appeared to pre-dispose was 32, while placenta accrete and a history of

multiple RPs appeared to pre-dispose to recurrence. Another study done by Tanberg et al [11] showed that 16.0% had experienced retained placenta before. Chhabra and Dhorey [8] showed 14.08% women had retained placenta in the past. Panpaprai and Boriboonhirunsarn (2007)<sup>5</sup> found previous retained placenta and used of oxytocin were 1.3% and 66.7% respectively. Sultan and Khashoggi (1997)<sup>6</sup> observed that previous retained placenta in were in 8.2% and previous D&C in 27.4% of their study cases. Induction of labor, pethidine and oxytocin usage has been reported to increase the incidence of retained placenta in previous studies done by Soltan and Khashoggi [6], Adelusi et al [12], Dombrowski et al [13] and Ely et al [14]. Uterine surgery in the form of caesarean section or D&C are significantly associated with retained placenta. The above findings regarding the predisposing factors are comparable with the current study. The risk of having retained placenta increases with age and parity. Chang et al [15] reported commoner incidence of retained placenta in grand multi para although they did not state magnitude of this increase. In this series it was observed that, 4.0% patients were primi para and 96.0% patients had multi para. Chhabra and Dhorey [8] showed parity ranged between primi para to para 6, but most were second and third para, which is consistent with the current study findings. On the other hand, Soltan & Khashoggi [6] and Owolabi et al [7] showed 16.4% and 25.8% patients were in grand multipara. Regarding the od P/A examination of the study patients it was observed in the study that atonic uterus was in 58.0%, more than three fourth (76.0%) was with full urinary bladder, mean height of uterus was  $22.24 \pm 1.6$  weeks. About the per vaginal examination in this present series it was observed that moderate per vaginal bleeding was in 85.0%, vaginal full with clot was in 82.0% and OS was open in 92.0%. In Das [16] study showed the dilatations of the cervical during paravaginal examination, 92.0% cases were open and in 8.0% cases closed. Time interval between delivery and removal of placenta in an important factor. As time passes by, the chances of closure of their will be more and thus manual removal of placenta will be more difficult. In this current

study it was observed that the mean Hb% was found  $8.25 \pm 0.85$  gm/dl with range to 7 to 9.2 gm/dl. In another study Chhabra and M. Dhorey [2] showed only 8.4% had hemorrhage of 11gm/dl and above. Regarding the diagnosis, it was observed in this present in this present study that retained placenta with PPH without shock was 40.0% and retained placenta without PPH was 8.0%. Therefore, retained placenta not only causes hemorrhage shock it can also cause shock merely by its presence. In the study of Chhabra et al, (2002)<sup>2</sup> showed 36.61% women had come in state of severe shock. In this current series it was observed that all patients received antibiotics, among them injection ciprofloxacin injection metronidazole received 76.0%, blood transfusion received 94.0%, oxytocin 98.0%, prostaglandin 96.0% and controlled cord traction was done in 6.0%. It was observed in this current study that, 94.0% of the patients need manual removal of placenta, deep sedation was given to 48.0%, analgesia was given to 12.0% and anesthesia was given to 46.0% and 2.0% underwent hysterectomy. None of the cases of RP was removed with the use of spinal analgesia. Ideally manual removal of placenta is done under general anesthesia but in case of emergency where anesthesia facilities are limited it can be also done under deep sedation and analgesics. The previously mentioned study in Kasturba Hospital, India by Chhabra et al [2] showed a number of thirty-six (50.7%) women required general anesthesia for manual removal. Another study by A Tandberg et al [16] showed that the use of general anesthesia for manual removal of placenta decreased from 74% in 1990 to 19% in 1994 due to increased use of spinal analgesia. Another study by A Tandberg et al [11] showed that out of total of 24,750 deliveries registered during the five-year study period, placenta was removed manually in 165 women (0.6%). Another study showed that manual removal of placenta was needed in 81.25%<sup>8</sup> which is inconsistent with Tandberg et al [11] study where the authors obtained 1.8% developed inversion. In the current study it is observed that balloon catheter was done in 22.0%, prostaglandins tab was given in 28.0% and oxytocin injection received in 28.0% of the patients.

## 5. Conclusion and Recommendations

Retained placenta still remains a potentially life-threatening condition in the tropics due to the associated haemorrhage, and other complications related to its removal. The incidence and severity may be decreased by health education, women empowerment and the provision of facilities for essential obstetrics services by high skilled health care providers in ensuring a properly conducted delivery with discharged after timely effective management. The presence of the risk factors antenatally should alert obstetrics to be aware of condition and its major consequence of postpartum haemorrhage and that they should be prepared to avoid serious morbidity and mortality. In addition, the presence of these risk factors should be targeted for the prevention of retained placenta. However, there is a need for the training and retaining of birth attendants in the proper conduct of delivery and third stage of labour to prevent placenta retentions and PPH. Moreover, the improvement in the socioeconomic conditions of the populace

and removal of fee for service in maternity care services, coupled with the involvement of the informal sector and the rural populace in the recently- introduced health insurance scheme, will improve the utilization of available delivery care services and reduce the number of unbooked emergencies.

## Limitations of the Study

Since this a hospital-based study, the incidence does not reflect the actual incidence of the community. The study sample size was also small, it is not found to be statistically significant and no control was taken.

## Funding Source

Self.

## Conflict of Interest

Not declared.

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