

Role of SR cannula in Management of Atonic PPH -A Study in GGH Kadapa
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Abstract

Background: Postpartum hemorrhage (PPH) is a leading cause of maternal mortality and morbidity, resulting in 27.1% of maternal deaths globally. It is among the manageable causes of maternal mortality that if managed properly can prevent most of the cases of maternal deaths.

Methods: A prospective study was conducted at a tertiary care centre GGH kadapa from June 2022 to June 2023. All cases of pph who were admitted and managed during this period were included in this study

Results: During the study period a total of 7248 women were delivered. Out of which 3292 women were delivered vaginally and 3956 women were delivered through Caesarean section. Out of 87 PPH cases 84 had atonic PPH whereas 3 had traumatic PPH. Most of the cases were managed medically i.e around 53 cases and remaining 34 women were managed surgically through suction cannula.

Out of 34 women who were managed through suction cannula 11 were delivered vaginally whereas other women were delivered through Caesarean section.

Conclusion: The frequency and impact of severe hemorrhage can be effectively reduced by reducing avoidable risk factors, especially those related to obstetric interventions as increased CS rate and induction and augmentation of labour with injudicious use of uterotonics.

Introduction: Postpartum hemorrhage (PPH) is a leading cause of maternal mortality and morbidity, resulting in 27.1% of maternal deaths globally. The incidence of severe postpartum hemorrhage (PPH) is estimated to occur in 0.3–5% of all births: but markedly varies between geographic regions over the world. The presence of at least one of the following conditions—estimated blood loss > 1000–2500 mL, peripartum hemoglobin decline > 4 g/dL (compared to the baseline hemoglobin value measured before delivery), transfusion of at least four units of packed red blood cells, and hemostatic interventions—was considered to imply severe PPH. All Collected data were analysed with epitab 6.04 version and SPSS version 20 Software.

Methods A prospective study was conducted at tertiary care centre in GGH kadapa. The study duration was from June 2022 to June 2023:

Inclusion criteria: This study includes all patients with atonic PPH who failed to respond to uterotonic drugs.

Exclusion criteria:

1. Traumatic pph

2. Previous caesareans with risk of scar dehiscence.
3. Morbidly adherent placenta.
4. Congenital coagulation disorder.
5. HELLP Syndrome.

Sample Collection:The study included all cases of normal vaginal deliveries, assisted vaginal deliveries and Caesarean section over a study period of June 2022 to June 2023. For calculation of frequencies, the total number of deliveries in the setting during study period was used. Diagnosis of PPH was made clinically based on findings of pelvic examination, condition of uterus and amount of bleeding. Maternal condition was assessed and managed according to established hospital protocols which included both medical and surgical interventions. Ethical consideration & permission obtained from Institutional Ethical Committee

Results: During the study period a total of 7248 women were delivered. Out of which 3292 women were delivered vaginally and 3956 women were delivered through Caesarean section.

Table 1:

Total number of deliveries	7248
Caesarean section	3956
Vaginal deliveries	3292
Assisted vaginal deliveries	698
Total number of PPH cases	87

Table 2:Incidence of PPH in different mode of delivery

PPH in vaginal delivery	13
PPH in instrumental vaginal delivery	8
PPH in caesarean section	66

This study shows that maximum incidence of PPH is associated with Caesarean section followed by vaginal deliveries.

Table 3:Age of women during delivery

<20yr	14members
20 to 25yrs	42 members
26 to 30yrs	24 members
31 to 35 yrs	6members
>35yrs	1 member

Table 4: Gestational Age

30 weeks	3members
30 to 36 weeks	11 members
36 to 40 weeks	67 members
>40 weeks	6 members

Table 5:Time taken to control bleeding

<3minutes	20members
3 to 4 minutes	33 members
> 4 minutes	34 members

Table 6:Amount of blood loss

< 100ml	23
100 - 150ml	28
150- 200ml	4
200-300ml	10
>300ml	22

Table 7: Number of women needed blood transfusion

1 blood transfusion	43 members
2 blood transfusion	26 members

Out of 87 PPH cases 84 had atonic PPH whereas 3 had traumatic PPH. Most of the cases were managed medically i.e around 53 cases and remaining 34 women were managed surgically through suction cannula. Out of 34 women who were managed through suction cannula 11 were delivered vaginally whereas other women were delivered through Caesarean section. All women who were managed through suction cannula recovered well without any further complications.

Discussion : Postpartum hemorrhage is the leading cause of morbidity and mortality among pregnant ladies and it is the 5th most common cause of maternal mortality throughout the world. The place of delivery and severity of hemorrhage determine the outcome. Commonest mode of delivery which was found in present study was C-section followed by spontaneous vaginal delivery and instrumental vaginal delivery.

If the woman has developed PPH following delivery in a health facility, the immediate medical and surgical interventions are possible. It is not so, when woman delivers at home or in a small hospital ill equipped with facilities to manage obstetric emergencies,

Most important and major finding in our study was that the most common cause of postpartum hemorrhage was uterine atony, which is loss of tone in the musculature.

In our study SR cannula showed better prognosis in women where PPH couldn't be controlled medically. SR cannula which is kept for around 10 min with adequate blood transfusions for the women showed better prognosis in women. It is also needed that the birth attendant must know how to provide safe care (physiologic management) to prevent PPH in the absence of uterotonic drugs.

Most maternal deaths due to PPH occur in low income countries in settings (both hospital and community) where there are no birth attendants or where birth attendants lack the necessary skills or equipment to prevent and manage PPH and shock.

Conclusion: In an era with availability of excellent uterotonics and active management of third stage of labor even today PPH stands first as the cause of maternal mortality and morbidity. The frequency and impact of severe hemorrhage can be effectively reduced by reducing avoidable risk factors, especially those related to obstetric interventions as increased CS rate and induction and augmentation of labour with injudicious use of uterotonics.

Other risk factors not amenable to change such as age, ethnic origin, and preexisting medical diseases or bleeding disorders can be minimized by extra vigilance and planned conjoined management. Uterine atony is the most common cause of postpartum haemorrhage, so its incidence can be lowered by universal adoption of AMTSL.

Institutional deliveries, timely intervention, judicious approach anaesthesia, ICU back up and availability of blood and blood component in facilities will improve clinical outcome. Avoidance of delays in identification and transfer, high risk pregnancy identification and timely referral, capacity building of peripheral health workers in use of medication and uterine massage therapy will go a long way in reducing the maternal mortality related to atonic postpartum hemorrhage.

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