



CASE REPORT OBSTETRICS

## The last resort that saved two lives: Emergency obstetric hysterectomy

Priya Pratapan Nair<sup>1</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, Shifa Al Jazeera Medical Centre, Ras Al Khaimah, United Arab Emirates

**\*Corresponding author:**

Priya Pratapan Nair,  
Department of Obstetrics and  
Gynaecology, Shifa Al Jazeera  
Medical Centre,  
Ras Al Khaimah,  
United Arab Emirates  
[priyapratapan@gmail.com](mailto:priyapratapan@gmail.com)

Received: 12 November 2024  
Accepted: 24 December 2024  
Published: 18 January 2025

DOI  
10.25259/RMCGJ\_4\_2024

Quick Response Code:



### ABSTRACT

The case report aims to guide through the management of postpartum hemorrhage and timely intervention to save a mother's life. In a developing country, even though the statistics have improved, postpartum hemorrhage (PPH) still accounts for the commonest cause of maternal mortality. Its prevalence is about four cases in 10,000 deliveries. Even though several advances are made in the medical and surgical field to preserve a uterus, like oxytocin, methergine, prostaglandins, newer drugs like carbetocin and surgical methods like balloon tamponade, condom catheter, systemic devascularization, internal iliac artery ligation, B lynch sutures, cho sutures, sometimes all the resorts fail and the female lands up in emergency obstetric hysterectomy (OH) for saving her life. We present a case of a low-risk parous woman who was induced for the normal trial of labor and her journey through labor, emergency lower segment cesarean section, and then OH as a lifesaving procedure. Timely decisions and prompt action are needed during the golden hour of PPH to save a mother and child. Clinical significance is that obstetrics hysterectomy is associated with morbidity and is a last resort that can be used to save a patient's life when all the other medical and surgical management fail to avoid morbidity and mortality.

**Keywords:** Emergency cesarean section, Labor, Maternal morbidity, Maternal mortality, Obstetrics hysterectomy, Postpartum hemorrhage

### INTRODUCTION

Postpartum hemorrhage (PPH) stands on top of maternal mortality worldwide.<sup>1,2</sup> According to the special bulletin on Maternal Mortality Ratio (MMR) released by the Register General of India in March 2022, India's MMR has improved from 113 in 2016–2018 to 103 in 2017–2019. Even though no proper definition of PPH prevails, it is defined as a volume of blood loss of more than 500 ml or more within 24 hours after birth.<sup>3</sup> It can be further subclassified as mild PPH (> or = 500 ml blood loss) and severe PPH (> or = 1,000 ml blood loss), and the prevalence counts for approximately 6% and 1.86% of all deliveries, respectively.<sup>4</sup>

Emergency obstetric hysterectomy (OH), as the name suggests, is the removal of the uterus at the time of cesarean section or following vaginal delivery, or within the puerperium period. It is conducted when all the sources to stop bleeding from the uterus fail and lifesaving is more important than losing a uterus. A woman undergoing an obstetric emergency can be counted under a near-miss event. A woman who barely survived a complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy is counted under near miss.<sup>5</sup> Conservative methods include the use of drugs like oxytocin, misoprostol, ergometrine, and

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.  
©2025 The Authors; Scientific Scholar on behalf of RMC Global Journal

carbetocin, followed by the use of the tamponade effect with a condom catheter and non-inflatable anti-shock garments to manage hypovolemic shock, to other methods like ligation of uterine arteries, ovarian arteries, internal iliac arteries, B Lynch suture, and Cho sutures.<sup>6</sup> Advances in interventional radiology have also provided the option of uterine artery embolization.<sup>7,8</sup>

## CASE REPORT

### Patient Information

A 29-year-old Gravida 2, Para 1, Live 1, with a previous full-term vaginal delivery at 41 weeks of gestation, got admitted from outpatient department for induction of labor with post-date pregnancy with decreased fetal movements. Her previous pregnancy was uneventful throughout with no medical, surgical, or significant family history. The last pregnancy was also post-date with induction of labor and normal vaginal delivery of a 3.2 kg baby without intrapartum or postpartum complications.

### Clinical Findings

On examination, the patient was afebrile, with no edema feet, no cyanosis, no lymphadenopathy, no clubbing, no pallor, and no icterus. Blood pressure was 130/80 mm of mercury (Hg) in the right arm in a supine position, pulse was 88/minute, the respiratory system was normal, and the cardiovascular system was normal. Height was 156 cm, weight 70 kg. On examination, the uterus was term size, cephalic, and engaged; fetal heart sounds were normal, and the uterus was relaxed. She was 1 cm dilated, with a firm cervix, just effaced, posterior, and the station high up.

### Timeline

The patient had a low-risk pregnancy, 41 weeks gestation, and decreased fetal movements.

### Diagnostic Assessment

Her complete blood count was sent, and blood grouping and cross-matching were done. Her non-stress test (NST) was reactive.

### Diagnosis

She was G2P1L1 with a post-date pregnancy with a reactive NST for induction of labor given a poor Bishop's score.

### Interventions

She was induced with misoprostol 25 mcg, orally, twice, 4 hours apart, following which she developed mild contractions and was 2 cm dilated and 30% effaced, the

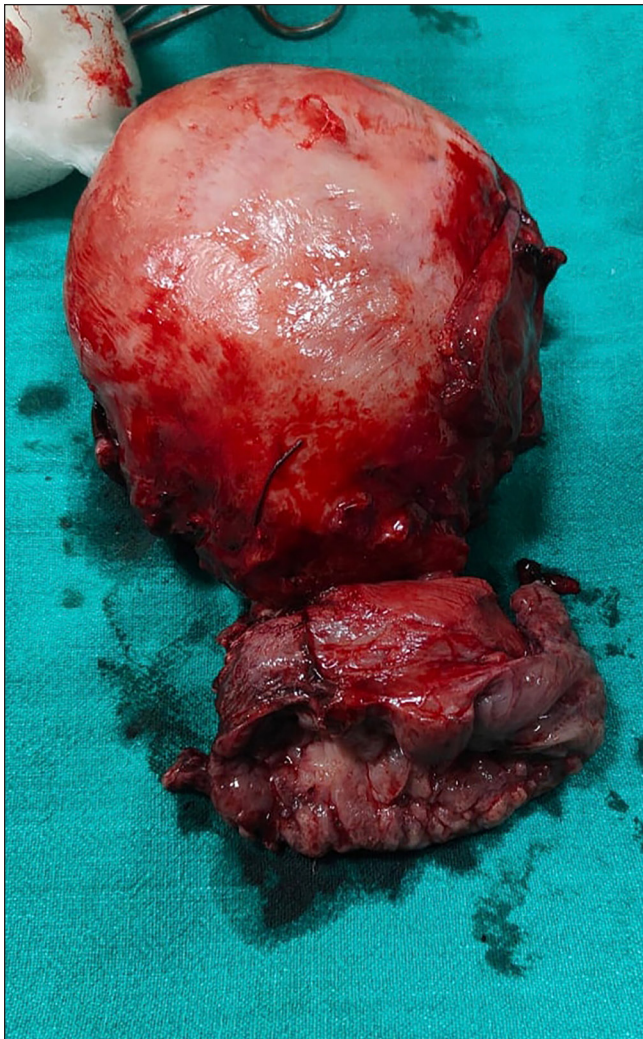
station still high up. To augment her labor, she was started with oxytocin, two units in 500 ml Ringer's lactate, at the rate of 8 drops/minute and titrated every 20 minutes till good contractions. Her partograph showed steady progress of labor with slow descent and rotation, and she was fully dilated with a station at zero and sutures transverse. Fetal heart rate had persistent bradycardia, heart rate below 100 beats/minute, with no descent or fetal head rotation and development of caput and molding.

After explaining the risk to relatives and after the consent, the patient was shifted to an emergency lower segment cesarean section. Intraoperative findings were suggestive of obstructed labor with an advanced bladder, a papery thin lower segment, and early formation of Bandl's ring. After delivery of the fetus, 3.5 kg, with mild respiratory distress, the baby was shifted to the neonatal intensive care unit (ICU) for observation. The uterus was expelled for exploration. There was evidence of extension of the suture line beyond the right angle up to the broad ligament with the formation of a broad ligament hematoma suggestive of traumatic postpartum hemorrhage along with the atonic uterus. Hemostatic sutures were taken at the bed of the broad ligament after scooping out the hematoma. Blood loss went around 1,000 ml. The patient was given injectable oxytocin 20 units, an injection of methergine 0.25 mg once, tablet of misoprostol 600 µg per rectally, serially over 20 minutes, but the tone was not achieved. Her blood loss went up to 1.5 l with falling vitals, blood pressure 80/50 mm Hg, and pulse 140 beats/minute. An immediate decision of OH was taken after obtaining consent from relatives. Due to falling vitals, conservative management of stepwise devascularization was skipped, and direct decision of OH was taken. A total hysterectomy was performed by a consultant on the call with the help of a senior consultant and a team of anesthetists; the specimen shown in Figure 1. Meanwhile, the patient was started on support and two units of packed red cells, two units of fresh frozen plasma, and colloids were given to maintain her vitals. She developed conjunctival edema after receiving colloid, which was managed with antihistamines and hydrocortisone. Total blood loss intraoperatively was approximately 1.8 l and urine output was 500 ml clear.

Follow-up showed normal vitals with a clear chest. The patient was shifted to the ICU for monitoring. Her recovery was uneventful with good physiotherapy, and she was discharged from the hospital with a good scar, a healthy baby, and an event to remember for a lifetime.

### Patient's Perspective

The patient gave a history of postdates and prolonged labor in her first pregnancy. The relatives were satisfied with the management in the hospital.



**Figure 1:** Specimen of uterus after obstetrics hysterectomy.

## DISCUSSION

PPH tops the list of maternal morbidity and mortality worldwide. Several causes of PPH include: Atonic PPH, caused by loss of uterine tone, followed by traumatic PPH, like trauma to the uterus or adnexa during normal delivery or cesarean delivery. Others are the retained placenta or membranes, which can cause bleeding, and the fourth is coagulation defects. A standardized protocol was set in a meeting for managing PPH conducted by the worldwide obstetrician, hematologist, and anesthesiologist in November 2011, where an extensive review of the literature was conducted. Initial evaluation includes the calculation of blood loss to assess the severity of PPH.

The use of uterotonics and uterine massage is the first line of management. Simultaneous exploration of the uterine cavity, cervix, and vaginal canal for trauma should be assessed, and

the cavity should be explored for any retained product of conception. Coagulation screening should be conducted if there is persistent hemorrhage. The second and third lines of management should proceed if no stoppage of hemorrhage is there. These include mechanical tamponade in the form of condom catheters, intrauterine balloon tamponade, or surgical maneuvers like hemostatic brace sutures, with hysterectomy as the last surgical option for uncontrolled PPH. Timely intervention for the prevention of blood loss, which can decompensate the patient, should be kept in mind, and the patient should be given aggressive fluid replacement in the form of colloids, crystalloids, blood, and blood products while avoiding fluid overload to decrease the morbidity.<sup>9</sup>

Protocols were being followed in the current case scenario and, at the same time, accelerated from the second line to the fourth line management due to falling vitals and the priority being to save the mother's life.

In a study conducted by Butwick et al.<sup>10</sup>, it was seen that most cases of PPH responded to first-line therapy, including oxytocin administration and uterine massage, methylergonovine, and carboprostol being the second-line uterotonics were integral for the management of refractory uterine atony. The morbidity analysis of methylergonovine or carboprostol was not assured, so a secondary analysis was performed using the Maternal-Fetal Medicine Units Network Cesarean Registry. The patients undergoing cesarean section were divided into two categories: one who received ergotamine and one who received carboprostol. The outcome was studied, based on hemorrhage-related morbidity and the utilization of blood products after PPH. The study cohort comprised 1,335 women, of which 870 (65.2%) women received methylergonovine and 465 (34.8%) women received carboprostol. The risk of hemorrhage-related morbidity was higher in the carboprostol group than in the methylergonovine group (relative risk, 1.7; 95% confidence interval, 1.2–2.6). Based on these results, methylergonovine may be a more effective second-line uterotonics.<sup>10</sup>

Active management of the third stage of labor is nowadays regarded as the protocol for managing the third stage to decrease blood loss and subsequent anemia. It includes not waiting for the spontaneous expulsion of the placenta as in the conventional method up to 30 minutes and cutting short the third stage to 5 minutes. Ten units of intramuscular oxytocin immediately after delivery of the anterior shoulder of the baby followed by controlled cord traction should be attempted. However, the retained placenta or adherent placenta always creates a hurdle in it. Timely use of ultrasonography could contribute to a reduction of maternal morbidity.

A timely presence of mind is necessary in diagnosing the cause of PPH, and handling the situation to avoid mortality and morbidity in women. Even though all the latest resorts help

manage PPH, and OH is a receding technique, sometimes it's always better to lose a uterus than lose a mother.

## CONCLUSION

Early, aggressive, timely, and coordinated intervention by healthcare professionals plays a vital role in minimizing blood loss to ensure optimal clinical outcomes for the patient with lesser morbidity and no mortality.

**Ethical approval:** Institutional Review Board approval is not required.

**Declaration of patient consent:** The authors certify that they have obtained all appropriate patient.

**Financial support and sponsorship:** Nil.

**Conflicts of interest:** There are no conflicts of interest.

**Use of artificial intelligence (AI)-assisted technology for manuscript preparation:** The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

## REFERENCES

1. Rath WH. Postpartum hemorrhage—Update on problems of definitions and diagnosis. *Acta Obstet Gynecol Scand* 2011;90:421–8.
2. Weeks A. The prevention and treatment of postpartum hemorrhage: What do we know, and where do we go next? *BJOG* 2015;122:202–10.
3. WHO handbook for guideline development. WHO recommendations on prevention and treatment of postpartum hemorrhage. Geneva:World Health Organization;2012. p.1.
4. Carroli G, Cuesta C, Abalos E, Gulmezoglu AM. Epidemiology of postpartum hemorrhage: A systematic review. *Best Pract Res Clin Obstet Gynaecol* 2008;22:999–1012.
5. Say L, Souza JP, Pattinson RC. Maternal near miss—Towards a standard tool for monitoring the quality of maternal health care. *Best Pract Res Clin Obstet Gynaecol* 2009;23:287–96.
6. Miller S, Lester F, Hensleigh P. Prevention and treatment of postpartum hemorrhage: New advances for low resource settings. *J Midwifery Womens Health* 2004;49:283–92.
7. Singhal S, Singh A, Raghunandan C, Gupta U, Dutt S. Uterine artery embolization: Exploring new dimensions in obstetric emergencies. *Oman Med J* 2014;29:217–9.
8. Varghese S, Gokulam N, Al-Abri S. Uterine artery embolization in postpartum hemorrhage: A case report. *Oman Med J* 2012;27:e033.
9. Abdul-Kadir R, McLintock C, Ducloy AS, El-Refaey H, England A, Federici AB, et al. Evaluation and management of postpartum hemorrhage: Consensus from an international expert panel. *Transfusion* 2014;54:1756–68.
10. Butwick AJ, Carvalho B, Blumenfeld YJ, El-Sayed YY, Nelson LM, Bateman BT. Second-line uterotonics and the risk of hemorrhage-related morbidity. *Am J Obstet Gynecol* 2015;212:642 e 641–7.

**How to cite this article:** Nair PP. The last resort that saved two lives: Emergency obstetric hysterectomy. *RMC Glob J.* 2025;1:37–40. doi: 10.25259/RMCGJ\_4\_2024