OPEN ACCESS
Scholars International Journal of Obstetrics and Gynecology
Abbreviated Key Title: Sch Int J Obstet Gynec
ISSN 2616-8235 (Print) |ISSN 2617-3492 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article

Indications of Peripartum Hysterectomy

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DOI: 10.36348/sijog.2022.v05i10.006 | **Received:** 22.08.2022 | **Accepted:** 27.09.2022 | **Published:** 15.10.2022

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Abstract

Introduction: Peripartum hysterectomy has to be done repeatedly as the last resort in saving a woman's existence. Currently, several drugs and surgical techniques have been established for the management of postpartum haemorrhages. The foremost indication for peripartum hysterectomy is severe uterine haemorrhage that cannot be controlled by conservative methods. ***Objectives:*** This study intended to find out the indication and frequency of peripartum hysterectomy in MAG Osmani Medical College Hospital, Sylhet. ***Methods:*** This prospective cross-sectional study on 100 cases of peripartum hysterectomy was carried out at the Department of Obstetrics & Gynaecology at Sylhet M.A.G Osmani Medical College Hospital, Sylhet from January 2004 to June 2005. Verbal consent was taken before recruiting the study population. Data was compiled and analysed manually. ***Result*:** The commonest age group involved in peripartum hysterectomy was 31-35 years (38,38.0%). The incidence of peripartum hysterectomy was 0.70%. Rupture uterus (76%) was the most common cause. Other causes are uterine atony (12%), Placenta praevia (2%), placenta accreta (2%) & sepsis in 6% of cases. Maximum patients (82,82.0%) did not get any antenatal care. Of those who got antenatal care, eighteen patients (18,18.0%) were irregularly booked. ***Conclusion:*** Emergency peripartum hysterectomy is a vital lifesaving technique and remains to have a high incidence in our community. The choice to implement an emergency peripartum hysterectomy is usually obscure as the obstetrician's paramount wish is to preserve the uterus for future childbearing.

Keywords: Indication, Peripartum, Hysterectomy, Haemorrhage, etc.

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INTRODUCTION

Increasing rates of maternal and child mortality are the main concern for most developing countries like Bangladesh. The maternal mortality ratio (MMR) varies from 100-700 per 100000 live births in developing countries. On the contrary, it ranges from 4-40 per 100000 live births in developed countries [1]. The national target for Bangladesh is to reduce the maternal mortality ratio to 105 (per 100,000 live births) by 2021. Bangladesh is in an advantageous position since the maternal mortality ratio (MMR) is already lower than the national target of 2021. However, to reach the maternal mortality ratio (MMR) at 70 by 2030, continuous monitoring and effective policy implication are necessary[2]. Peripartum hysterectomy has to be performed often as the last resort in saving a woman's life. Nowadays various drugs and surgical techniques have been developed for the management of postpartum haemorrhages.[2] Emergency peripartum hysterectomy is a life-saving procedure to prevent maternal death. A "near-miss" maternal event-an intervention is performed in life-threatening obstetric situations to restrain death [2]. The majority of hysterectomies are done for haemorrhages, although prostaglandins help to control intractable and unresponsive cases that need surgical treatment. The main indication for peripartum hysterectomy is severe uterine haemorrhage that cannot be controlled by conservative measures. In modern obstetrics, the overall incidence is 0.05%. But there is a considerable difference in its incidence in different parts of the world depending on the standard and awareness of antenatal care and the effectiveness of family planning in a community [3]. Bangladesh is one of the developing countries where uterine rupture is a major indication for emergency hysterectomy followed by uterine atony and abnormally adherent placenta. Though the incidence of rupture of the uterus with obstructed Labour was

common in the past, the incidence of scar rupture and abnormally adherent placenta is becoming common in recent years. In the Sylhet division, there are many places which are hard to reach. So, the national rate (58.1%) is extremely greater than the contraceptive prevalence rate (31.8%) in Sylhet. Maternal and child health indicators along with developmental indicators are also below the national level. Most of the patients of Sylhet M.A.G Osmani Medical College Hospital come in a fate stage with near-death conditions as an emergency case with serious obstetric complications, mostly without any antenatal checks up. In many cases, peripartum hysterectomy may be required to minimize maternal mortality and morbidity. So, in this study, we aim to identify the indication and the causes of peripartum hysterectomy.

OBJECTIVES

General Objective

This study aimed to find out the indication of peripartum hysterectomy in women delivered at SOMCH.

Specific objective

- To find out the frequency of peripartum hysterectomy during the study period.
- To identify the causes of peripartum hysterectomy.
- To find out the outcome of peripartum hysterectomy.

METHODS

A cross-sectional study was carried out in the department of Obstetrics and Gynecology at Sylhet M.A.G Osmani Medical College Hospital, Sylhet, during the period from January 2004 to June 2005. All admitted obstetrics patients were in the labour ward. And 100 obstetrics cases needed a peripartum hysterectomy. A self-administered structural questionnaire is prepared for this study. Verbal consent was taken before recruiting the study population. Ethical clearance was taken from the hospital. The information was kept confidential only to be used for the study purpose. Data was compiled and analysed manually.

Inclusion Criteria:

- All patients require peripartum hysterectomy fulfilling inclusion criteria.

Exclusion Criteria:

- Pregnancy with a medical disorder like diabetes mellitus, or hypertension.
- Patient manages conservatively and repairs of rupture uterus.

RESULT

Emergency peripartum hysterectomy was performed by a hundred (N=100) people. The frequency was 7 per 1000 deliveries. Frequency of peripartum hysterectomy (n=100). The total delivery frequency of peripartum hysterectomy was 7/1000 patients **[Table-I].** The commonest age group involved in peripartum hysterectomy was 31-35 years (38,38.0%). This table inclines the mean parity to 3.95. The range of parity was 01-09, twenty-seven cases (27,27.0%) presented by APH and shock. Five patients (5,5.0%) presented with APH but were not in shock. Two cases (2,2.0%) presented by the feature of rupture of uterus and bladder rupture **[Table II].** The main indications of emergency peripartum hysterectomy include ruptured uterus was the most common indication (76,76.0%), associated with obstructed labour in fifty-eight patients (58,58.0%) and prior caesarean section (scar rupture) in eighteen patients 18,18.0%. The second common indication was PPH/uterine atony (12,12.0%). Placenta praevia with placenta accrete was seen in two patients (2,2.0%). Sepsis was seen in six cases (6,6.0%) **[Table III].** In this study, subtotal abdominal hysterectomy was done in ninety-eight cases (98,98.0%) whereas total abdominal hysterectomy in two cases (2,2.0%) **[Table-IV].** Maximum patients (82,82.0%) did not get any antenatal care. Of those who got antenatal care, eighteen patients (18,18.0%) were irregularly booked **[Table-V].**

Table-I: Frequency of peripartum hysterectomy (N=100)

Total peripartum hysterectomy	Total delivery	Frequency
100	14235	7/1000 delivery

Table-II: Age, Parity Distribution, mode of the presentations of the patients (N=100)

Characteristics:	(N,%)
Age Mean Age**:** 30.15± 0.81	
21-25	17,17.0%
26-30	34,34.0%
31-35	38,38.0%
36-40	11,11.0%
Parity Mean Parity: 3.95	
00-01	47,47.0%
02-03	41,41.0%
03-04 and above	12 ,12.0%
Presentation	
APH with shock	27,27.0%
APH without shock	5,5.0%
Full-term pregnancy with labour pain	20,20.0%
Rupture uterus with shock	46,46.0%
Rupture uterus with Bladder rupture	2,2.0%

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Table-III: Indications of peripartum hysterectomy (N=100)

Indications	Number	Percentage
Rupture uterus	76	76%
Obstructed Labour	58	58%
Scar rupture	18	18%
PPH/uterine atony	12	12%
Placenta praevia	2	2%
Placenta accrete	2	2%
Placenta praevia with placenta accrete	2	2%
Sepsis	6	6%
Total	100	100%

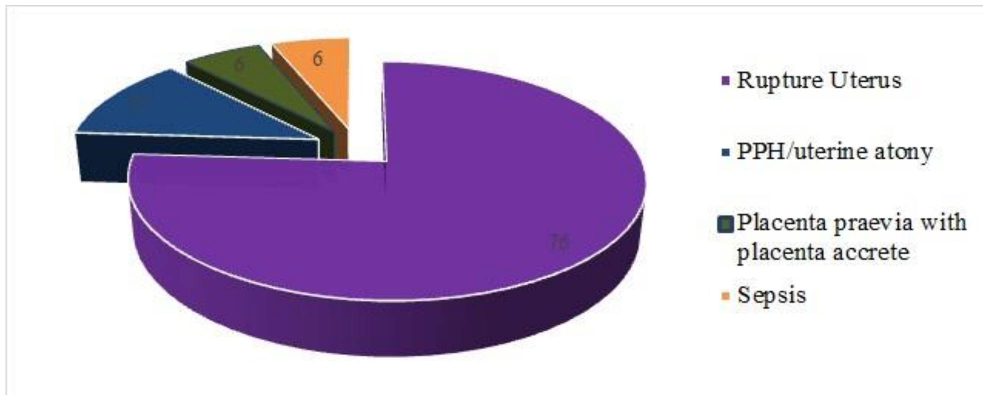

Figure 1: Figure showing indication of peripartum hysterectomy

Table-IV: Type of hysterectomy (N=100)

Type of hysterectomy	Number	Percentage
Sub-total hysterectomy	98	98%
Total abdominal hysterectomy	2	2%
Total	100	100%

Table-V: Relation of antenatal care (N=100)

Antenatal care	Number	Percentage
Un booked	82	82%
Booked	18	18
Regular	0	0%
Irregular	18	18%

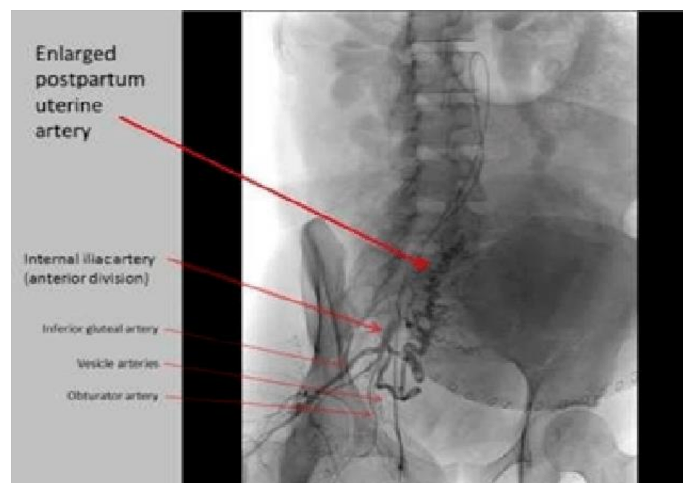

Figure 2: Figure showing an enlarged uterine artery is present post caesarean section [4]

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DISCUSSION

This study was conducted in MAG Osmani medical college hospital, Sylhet which is referred to as a teaching hospital. 100 cases of peripartum hysterectomy were observed and the overall incidence is 7 per 1000 deliveries. In modern obstetrics, the overall incidence is 0.05% (0.5/1000 deliveries) [5]. Fewer emergency hysterectomies were performed in some European countries as compared to South Asian countries [6]. The incidence of emergency peripartum hysterectomy ranged from 0.20 per 1000 deliveries in Denmark and the Middle Eastern country like Dubai the incidence is .47 per 1000 deliveries, which is almost equal [7]. It has been found in this study that the incidence of peripartum hysterectomy is more in the fourth decade and the mean age was 30.15 years. Alsayali *et al*., [8] show that 68% of cases were in the fourth decade which is almost similar to another study group [9-11]. The incidence occurs mostly in multiparous women of the high age group who may have a higher risk of a ruptured uterus and uterine atony [12]. Mean parity was found at 3.95 (range 1-9) according to this study. Makins *et al*., have conducted that median parity was 2 (range 0-7) in India which is comparatively lower than in Bangladesh [8]. However, in Sri Lanka in a study by Thapa *et al*., the mean parity was 07.00 (range 00-14) which is higher than two of these countries [13]. This study presented that 20% of the patients underwent peripartum hysterectomy with ruptured uterus and features in their full-term pregnancy had a severe labour pain and in other 27 patients had p/v bleeding with shock and another 46 patients had rupture uterus with shock. In this study, rupture of the uterus is the commonest (76%) indication of peripartum hysterectomy. Other case, causes are Atonic PPH (12%), placenta praevia with or without accrete (2%) and sepsis (6%). In other developing countries, studies carried out by Abasiattai *et al*., Umoiyoho *et al*., and Utuk *et al*., respectively, have also stated that rupture of the uterus is the prevailing indication of peripartum hysterectomy [14]. However, the picture is somewhat different in Canada and US where distinct studies have shown that abnormal placentation has been the primary indication [15, 16]. In different studies, it has been found that the common indications of emergency peripartum hysterectomy are rupture uterus, abnormally adherent placenta, postpartum haemorrhage and uterine atony [17, 18]. In this study, sub-total hysterectomy was carried out by 98 patients whereas total abdominal hysterectomy was performed by only 2 patients. In Sri Lanka 30 patients underwent total abdominal hysterectomy and 30 patients underwent sub-total hysterectomy [19]. The high incidence of rupture uterus from obstructed labour in our community reflects ignorance about pregnancy and childbirth care and substandard quality of obstetric care. Prior caesarian birth cases are delivered by repeat caesarian section and this is because the majority of the patients are non-booked in labour, referred to our hospital with considerable delay, record keeping is not up to the mark and details of the history of premature labour and operations are missing. Most patients with uterine rupture are usually treated by simple repair of the defect which sometimes is harmful [20, 21]. In this study, the maximum number of patients (82%) had not got any antenatal care and for those who got antenatal care 18% of patients were irregularly booked, these things should be improved in future. In our country, the incidences of peripartum hysterectomy are significantly high. But this trend is changing due to awareness of the people, effective antenatal care, and improvement of emergency obstetric care (EOC).

CONCLUSION

Emergency peripartum hysterectomy is associated with considerable morbidity and mortality and is more frequent in lower-income countries, where it contains a higher risk of mortality [22]. Our study found a strong association between uterine rupture and peripartum hysterectomy. Other significant risk factors include advanced maternal age, caesarean section and giving birth in Asia [23]. All potentially lifesaving devices and the appropriate team should be assembled before delivery to decrease the maternal associated with peripartum hysterectomy.

RECOMMENDATIONS

Public health efforts in Bangladesh should address the indication of peripartum hysterectomy. There is a necessity for setting a screening docket to cover all age groups for early detection and treatment of cases. Furthermore, strategies should be implemented to accelerate government programs. To get robust data, multicenter studies are in great need of policymakers to interpret the demonstrable scenario and to take necessary steps towards mitigating this problem.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the hospital.

REFERENCE

1. Datta, D. C. (2001). Safe mother hood obstetric care and the society, epidemiology of obstetrics. In Text Book of obstetrics 6th edition. Calcutta new central book agency (p) ltd. pp 642-645.
2. Rajia, S., Sabiruzzaman, M., Islam, M. K., Hossain, M. G., & Lestrel, P. E. (2019). Trends and future of maternal and child health in Bangladesh. *PloS one*, *14*(3), e0211875.
3. Tahir, S., Aleem, M., & Akram, S. (2003). Indication and maternal outcome of emergency peripartum hysterectomy. *Pakistan Journal of Medical Sciences*, *19*(3), 182-186.

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4. Zouhair, O. A. (2015). Approaches to Hysterectomy. In Text Book of intechopen 5th edition. pp 06.
5. Osefo, N. J. (1989). Caesarian and postpartum hysterectomy. *Int J Gynaecol obstet*, 30, pp 93-97.
6. Huque, S., Roberts, I., Fawole, B., Chaudhri, R., Arulkumaran, S., & Shakur-Still, H. (2018). Risk factors for peripartum hysterectomy among women with postpartum haemorrhage: analysis of data from the WOMAN trial. *BMC pregnancy and childbirth*, *18*(1), 1-8.
7. Tahlak, M. A., Abdulrahman, M., Hubaishi, N. M., Omar, M., Cherifi, F., Magray, S., & Carrick, F. R. (2018). Emergency peripartum hysterectomy in the Dubai health system: A fifteen year experience. *Turkish Journal of Obstetrics and Gynecology*, *15*(1), 1.
8. Afaf, R. A., Alsayali., Balous, S. M. A. (2000). Emergency obstetrics hysterectomy: 8-year Review a1 Taif Materity hospital, Sndiarabia. *Int J GYnaecol Obstet*, 50, 28-32.
9. Sturdee, D. W., & Ruston, D. (1986). Caesarian1 and postpartum hysterectomy. 1968-1983. *Br J Obste Gymaecol*, 93, 270-274.
10. Chestnut, D. H., Eden, R. D., Gall, S. A., & Parker, R. T. (1985). Peripartum hysterectomy: a revve Cnesran and poostpartem lysterectomy, 65(3), 363-370.
11. Taylor, V. M., Kramer, M. D., Vaughan, T. L., & Peacock, S. U. S. A. N. (1993). Placental previa in relation to induced and spontaneous abortion: a population-based study. *Obstetrics and gynecology*, *82*(1), 88-91.
12. Rouf, S., Siddiqua, S. F., & Miah, A. H. (2000). The rising trend for caesarian birth rate in a tertiay referrad cnd teahing hosgikal. *Kang ohset Gyneool*, 150, 15.
13. Makins, A., Taghinejadi, N., Sethi, M., Machiyama, K., Thapa, K., Perera, G., ... & Arulkumaran, S. (2018). Factors influencing the likelihood of acceptance of postpartum intrauterine devices across four countries: India, Nepal, Sri Lanka, and Tanzania. *International Journal of Gynecology & Obstetrics*, *143*, 13-19.
14. Abasiattai, A. M., Umoiyoho, A. J., Utuk, N. M., Inyang-Etoh, E. C., & Asuquo, E. P. (2013). Emergency peripartum hysterectomy in a tertiary hospital in southern Nigeria. *Pan African Medical Journal*, *15*(1).
15. Paul, R. H., Phelan, J. P., & Yeh, S. Y. (1985). Trial of labor in the patient with a prior cesarean birth. *American journal of obstetrics and gynecology*, *151*(3), 297-304.
16. Sturdee, D. W., & Ruston, D. L. (1987). Caesarean md postpartum hysterectomy. In stud J, editor. Progress in obstetrics and gynaecology London: Churcil living.
17. Miller, D. A., Diaz, F. G., & Paul, R. H. (1994). Vaginal birth after cesarean: a 10-year experience. *Obstetrics and Gynecology*, *84*(2), 255-258.
18. Rouf, S., Nasreen, N., Kutubi, A., & Islam, A. (2003). The association of placenta praevia with history of cnesrim delivery. *Bangladesh J obstet Gyrnaecol*, 18, 22-26.
19. Kumara, S. K. W. R., & Hemapriya, S. (2021). Outcome assessment of total abdominal hysterectomy vs ascending vaginal hysterectomy. *Sri Lanka Journal of Obstetrics and Gynaecology*, *43*(2).
20. Bhuiyan, S. N., Begum, R., Pervin, R., Morshed, R., & Hussain, A. Z. M. L. (2019). Clinical guide to obstetrics and gnecotogy f" ed. Chinagong, pp 309.
21. Chen, P. F. W. (2015). Third stage of labour and abnormalities. In. Edmonds, D. K. editor. Dewhrst's 1extbook of obstetrics amd gnaecology for postgradhuates. 6 ed. London: Blackwell science Ltd. p. 332. Dewhnurst 's texthook of obstetrics and gvnaecolog for postgradiuates. ed. London: Blackwell science lid, p. 332.
22. Huque, S., Roberts, I., Fawole, B., Chaudhri, R., Arulkumaran, S., & Shakur-Still, H. (2018). Risk factors for peripartum hysterectomy among women with postpartum haemorrhage: analysis of data from the WOMAN trial. *BMC pregnancy and childbirth*, *18*(1), 1-8.
23. George, P., Isac, M., & Thankachi, V. J. (2019). Emergency Peripartum Hysterectomy for Primary PPH-An Obstetrician’s Challenge. *Parity*, 19(2), 39-45.