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ORIGINAL ARTICLE

Emergency Obstetrics Hysterectomy: Current Situation in a Tertiary care Hospital of Sindh

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ABSTRACT

Objective: To determine the indications of emergency obstetrics hysterectomy (EOH) as a current situation in a tertiary care Hospital of Sindh.

Material and Methods: This descriptive cross-sectional study was conducted at obstetrics and Gynaecology department of Liaquat University of Medical and Health Sciences. The study duration was one year from January 2021 to December 2021. All the women underwent emergency obstetric hysterectomies, aged 18 to 40 years, both multi and primiparous of either residential status or booking status were included. Hysterectomy conducted for bleeding unresponsive to conservative medical and surgical treatment at the time of cesarean section or after birth until 42 days postpartum was characterized as obstetric hysterectomy. Patients were assessed regarding indications of the emergency obstetrics hysterectomies. All the data were collected via self-made study proforma. SPSS version 26 was used for the analysis of data.

Results: A total of 20 women were studied to assess the indications of emergency obstetrics hysterectomies. The average age of the women was 31.70+3.80 years and mean gestational age was 36.0+2.58 weeks. Placenta previa + morbidly adherent placenta was the most common indication 8(40.0%) with positive history of previous c-sections, uterine rupture was in 06(30.0%) women and placenta previa type IV was 03(15.0%), followed by fibroid uterus with history previous 3 c-sections was 01(5.0%), incomplete mischarge was 01(5.0%) and uterine atony was 01(5.0%). Indications were statistically insignificant according to residential status (p->0.05), while statistically significant according to booking status and parity (p-<0.05).

Conclusion: As per current scenario the placenta previa+ morbidly adherent placenta (MAP) with history of multiple previous C-sections and rupture of the uterus were observed to be the frequently prevalent indications of emergency obstetrics hysterectomy. Women who have had past C-sections should receive comprehensive antenatal care.

Keywords: Indications, EOH, morbidly adherent placenta, previous C-section

INTRODUCTION

The term emergency obstetric hysterectomy refers to the removal of the uterus during a caesarean section, after a vaginal delivery, or during the puerperium phase.[1] Its commonly done when an obstetric hemorrhage is uncontrollable and life-threatening. A near miss incident occurs when a woman is on the verge of death but survives a problem that occurs during gestation, the birth of the child, either within 42 days of the pregnancy's termination.[1,2] Hemorrhage is the cause of 12%–18% of pregnancy-related deaths,[3-5] and emergency hysterectomy is becoming more common to manage uncontrollable PPH.[3] Due to a lack of basic obstetric facilities, women's social behavior, and poverty, the frequency is likely to be high in developing nations like ours. The most likely reasons of EOH in the past were uterine rupture and hemorrhage.[6,7] Currently, improperly adherent placenta has been identified as a primary indication of obstetric hysterectomy, which could have been attributed to the global increase in cesarean section rates.[6,8] A previous cesarean section increases the risk of obstetrical hysterectomy because it can cause placenta previa, accreta, rupture uterus and morbidly adherent placenta.[9,10] Although the poor or lack antenatal care, multiparty and unattended delivery all increase the chance of major bleeding too. Previous uterine damage from prior uterine surgeries, such as caesarean section, myomectomy, uterine perforation, and placenta previa, can predispose to placenta accreta. If the placenta is anterior and the woman has already had a caesarean section, the women have a greater risk of developing MAP.[10] Apart from the increased prevalence of morbidly adherent placenta due to the increased rate of the caesarean sections, rupture of uterus and uterine atony remain to be prominent causes of substantial obstetric haemorrhage in developing nations.[11] It Collectively observed that the massive postpartum haemorrhage is amongst the most common causes of maternal morbidity and mortality, and it is the most challenging health issue. Although in conditions of persistent obstetric haemorrhage, emergency obstetric hysterectomy is a major, frequent obstetric management option performed to save the mother's life.[6] This study has been conducted to determine the indications of emergency obstetrics hysterectomy as a current condition in a tertiary care hospital in Sindh.

MATERIAL AND METHODS

This descriptive cross-sectional study was conducted at obstetrics and Gynecology department of Liaquat University of Medical and Health Sciences. The study duration was one year form January 2021 to December 2021. All the women underwent emergency obstetric hysterectomies, aged 18 to 40 years, both multi and primiparous of either residential status or booking status were included. All the women who underwent hysterectomy for reasons other than obstetrics and those who did agree to participate in the study were excluded. Hysterectomy conducted for bleeding unresponsive to conservative medical and surgical treatment at the time of cesarean section or after birth until 42 days postpartum was characterized as obstetric hysterectomy. Patients were assessed regarding indications of the emergency obstetrics hysterectomies. All the data regarding demographic information and indications of the emergency obstetrics hysterectomies were collected via self-made study proforma. SPSS version 26 was used for the analysis of data. Chi-square test was applied to observe the association of effect modifiers with outcome variable. P-value <0.05 was considered as significant.

RESULTS

A total of 20 women were studied to assess the indications of emergency hysterectomies. The average age of the women was 31.70+3.80 years and mean gestational age was 36.0+2.58 weeks. Urban, women were 55.0% and 45.0% were rural. Out of all 15.0% women had parity 1, 75.0% had parity 2–5 and 10.0% had a parity of more than five. Most of the women 65.0% were un-booked and 35.0% were booked. Table.2

According to the indication of emergency hysterectomy, Placenta previa + morbidly adherent placenta was the most common indication 8(40.0%) with positive history of previous c-sections, uterine rupture was in 06(30.0%) women and placenta

previa type IV was 03(15.0%), followed by fibroid uterus with history previous 3 c-sections was 01(5.0%), incomplete mischarge was 01(5.0%) and uterine atony was occurred in 01(5.0%). Indications according to the residential status (p->0.05), while statistically significant according to booking stats and parity (p-<0.05). Table.2

Table 1: Descriptive statistics of demographic characteristics n=20

Variables		Statistics	
Age (Years)		31.70+3.80 years	
Gestational Age (Week)		36.0+2.58 weeks	
Residence	Rural	09	45.0%
	Urban	11	55.0%
Parity	1	3	15.0%
	2-5	15	75.0%
	>5	2	10.0%
Booking status	Booked	07	35.0%
	Un-booked	13	65.0%

Table 2: Frequency of indications of emergency obstetrics hysterectomy as per effect modifiers n=20

INDICATIONS	Residence		Total	p-value
	Rural	Urban		
Placenta previa +MAP with previous three C-sections	1	4	05(25.0%)	0.276
Placenta previa +MAP with previous one C-sections	0	2	02(10.0%)	
Placenta previa +MAP with previous four C-sections	0	1	01(5.0%)	
Placenta previa type IV	2	1	03(15.0%)	
Rupture uterus	4	2	06(30.0%)	
Fibroid uterus with previous three C-sections	0	1	01(5.0%)	
Uterine atony	1	0	01(5.0%)	
Incomplete mischarge with previous four C-sections	1	0	01(5.0%)	
Total	09	11	20(100.0%)	
INDICATIONS	Booking status		Total	p-value
	Un-Booked	Booked		
Placenta previa +MAP with previous three C-sections	2	3	05(25.0%)	0.040
Placenta previa +MAP with previous one C-sections	0	2	02(10.0%)	
Placenta previa +MAP with previous four C-sections	0	1	01(5.0%)	
Placenta previa type IV	3	0	03(15.0%)	
Rupture uterus	6	0	06(30.0%)	
Fibroid uterus with previous three C-sections	0	1	01(5.0%)	
Uterine atony	1	0	01(5.0%)	
Incomplete mischarge with previous four C-sections	1	0	01(5.0%)	
Total	13	07	20(100.0%)	
INDICATIONS	Parity			Total	p-value
	1	2-5	>5		
Placenta previa +MAP with previous three C-sections	0	5	0	05(25.0%)	0.036
Placenta previa +MAP with previous one C-sections	2	0	0	02(10.0%)	
Placenta previa +MAP with previous four C-sections	0	1	0	01(5.0%)	
Placenta previa type IV	0	3	0	03(15.0%)	
Rupture uterus	0	4	2	06(30.0%)	
Fibroid uterus with previous three C-sections	0	1	0	01(5.0%)	
Uterine atony	1	0	0	01(5.0%)	
Incomplete mischarge with previous four C-sections	0	1	0	01(5.0%)	
Total	03	15	2	20(100.0%)	

MAP= Morbidly adherent placenta

DISCUSSION

Emergency obstetrical hysterectomy (EOH) is frequently performed in the event of a life-threatening obstetric haemorrhage, and is thus regarded as a "near miss" incident. In this study 20 women were studied to assess the indication of emergency hysterectomies; their average age was 31.70+3.80 years and mean gestational age was 36.0+2.58 weeks. Similarly in the study of Shah N et al[12] reported that the average age of their study subjects who underwent emergency obstetrical hysterectomy was 31±5 years. In the study of Chawla J et al[1] reported that over 70% of the women were aged 20 to 30 years old, and 82 percent of the women were multiparous. These findings were in the line of this study as the urban women were 55.0%, 15.0% women had parity 1, 75.0% had parity 2–5, while most of the women 65.0% were un-booked and 35.0% were booked as Shah N et al[12] also reported that out of all 16% of the women were booked only. On other hand Nasrullah FD et al[6] also demonstrated that at the time of surgeries, the average gestational age was around 36 weeks, and the average parity was 4.0. In the study of Omole-Ohonsi A et al[13] also demonstrated that the average parity was 3.5+0.7 and the un-booked patients had the highest rate of EPH (80.0%).

In this study according to the According to the indication of emergency hysterectomy, Placenta previa + morbidly adherent placenta was the most common indication 8(40.0%) with positive history of previous c-sections, uterine rupture was in 06(30.0%) women and placenta previa type IV was 03(15.0%), followed by fibroid uterus with history previous 3 c-sections was 01(5.0%), incomplete mischarge was 01(5.0%) and uterine atony was occurred in 01(5.0%). Indications according to residential status (p->0.05), while statistically significant according to booking stats and parity (p-<0.05) while these indications of emergency hysterectomy were statistically insignificant according to the parity and residential status (p->0.05), while statistically significant according to booking stats (p-<0.05). Consistently Nasrullah FD et al[6] also reported that the PPH leading to uterine atony (47.5%) was the most common reason for obstetric hysterectomy, followed by the 15% morbidly adherent placenta, 35% ruptured uterus and 2.5% sepsis. In the study of Shah N et al[12] reported that in their study the most common cause for EOH was the ruptured uterine followed by the morbidly adherent placenta and the uterine atony. In the line of this series the Mbakwa MR et al[14] reported that the most clinical manifestation of EOH was intractable postpartum haemorrhage 3.33% followed by, 30% uterine atony, 26.67% abnormal

placentation and 26.67% uterine rupture. On other hand Fatema K et al[15] reported that the ruptured uterus was the commonest indication of emergency obstetrical hysterectomy in 50% of the cases, severe PPH in 12.5% of the women due to uterine atony, 10% had placenta accrete, 7.5% had bleeding with placenta Previa, 12.5% underwent EOH due to abortion complications. Khanum Z et al[16] found in their study, ruptured uterus was the leading cause of obstetric hysterectomy in 50% cases, followed by postpartum haemorrhage due to uterine atony in 32% cases, anomalous placentation (MAP or placenta previa) in 14% cases, and secondary PPH in 3% of the women. On other hand Korejo R et al[17] found also found comparable findings. Adherent placenta was the most common sign of EOH in Turkey, accounting for 40% of cases.[18] JPMC Karachi reported 11.6 percent adherent placenta instances. An interesting finding in our study was the link between previous caesarean sections and EOH and these findings were almost similar to the study of Nasrullah FD et al[6]. Uterine rupture and adherent placenta were caused by previous caesarean sections in seven patients and six patients, respectively, whereas three patients with previous caesarean sections experienced PPH and required EOH.[6] As a previous caesarean section is a significant risk factor for obstetrical hysterectomy, lowering the caesarean delivery rate may lower the rate of emergency obstetrical hysterectomy.

CONCLUSION

As per current scenario the placenta previa+ morbidly adherent placenta (MAP) with history of multiple previous C-sections and rupture of the uterus were observed to be the frequently prevalent indications of emergency obstetrics hysterectomy. Women who have had past C-sections should receive comprehensive antenatal care. Following c-sections, women and their partners should be counseled regarding the possibility of a morbidly adherent placenta in subsequent pregnancies, as well as optimal birth spacing.

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