



RELATIONSHIP BETWEEN EMERGENCY OBSTETRIC HYSTERECTOMY AND MATERNAL AGE

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ABSTRACT

Removal of the uterus at the time of delivery or within the puerperium period is known as emergency obstetric hysterectomy. Obstetric hysterectomy is a lifesaving procedure performed in cases of uncontrolled uterine haemorrhage in placenta previa, placenta accrete, or uterine atony. Being one of the important factors in uterine morbidity, maternal age has also a role in emergency obstetric hysterectomy. The present study was performed to identify the relation between maternal age and emergency obstetric hysterectomy. The study was conducted in tertiary care centres and medical colleges of Gujarat from May 2010 to January 2020. Data was collected from 169663 patients who delivered during the study period, 291 patients underwent emergency obstetric hysterectomy were studied for the objectives of the study. 58.07% (169 out of 291) patients in the study were more than 35 years of age. The study found a statistically significant relationship between the maternal age and incidence rate. **Summary:** The incidence rate of emergency obstetric hysterectomy increases with the maternal age.

KEYWORDS : Emergency obstetric hysterectomy, maternal age, placenta previa, uterine atony

INTRODUCTION

Removal of the pregnant uterus or recently pregnant uterus is known as Obstetric hysterectomy.^[1] Extirpation of the uterus at the time of delivery or within the puerperium period is known as emergency obstetric hysterectomy.^[2] This lifesaving procedure is performed in postpartum haemorrhage in the atonic uterus, placenta previa, placenta accrete or in other causes to save the patient.^[3]

Postpartum haemorrhage has been a significant cause of maternal death in India. Maternal age is one of the important factors of uterine morbidity and previous studies show that the rate of obstetric hysterectomy increases with the maternal age.^[1,3-7]

OBJECTIVES

This study was conducted to identify the relationship between maternal age and emergency obstetric hysterectomy.

MATERIAL AND METHODS

This retrospective study was conducted after the Institutional Ethical Committee Clearance from May 2010 to January 2020 in tertiary care hospitals of Gujarat, India.

Patients who delivered between 1st may, 2010 to 31st January 2020 including both days, after 24 weeks of gestations were included in the study. Case of Emergency obstetric hysterectomy was defined as 'Patients undergone extirpation of the uterus either at the time of caesarean section or following vaginal delivery, or within the puerperium period to stop life-threatening obstetric haemorrhage when all other measures fail.'

Patients who delivered between 1st may, 2010 to 31st January 2020 including both days, after 24 weeks of gestations and undergone hysterectomy for obstetric purpose during delivery or within the time of puerperium (42 days) were identified as a case of emergency obstetric hysterectomy in the study. Women who delivered before 24 weeks of gestation were not included in the study; patients underwent a hysterectomy after the puerperium were also not included in the study.

Case records collected from the hospital records were studied for maternal age and outcome of the procedure. The data was compiled and analysed by Microsoft excel 2020 and Epi-info 7.2.4 software. For statistical significance confidence interval was considered >95% (p-value 0.05).

OBSERVATION AND RESULT

169663 patients who delivered during the defined period were included in the study. Out of the 169663 patients 291 patients were operated upon for emergency obstetric hysterectomy.

Table 1: Incidence rate in various age group.

Age (Years)	No. of patients (n= 169663)	No of cases	Incidence (Per 1000)
14-20	13032	9 (3.1%)	0.690608
21-25	35034	33 (11.35%)	0.941942
26-30	30300	34 (11.69%)	1.122112
31-35	32030	46 (15.81%)	1.436154
36-40	36390	74 (25.43%)	2.033526
41-45	13030	51 (17.53%)	3.914045
46-50	9847	44 (15.13%)	4.468366
Total	169663	291	1.715165

Mean age of the patients in the study was 31.52 years, mean age for emergency obstetric hysterectomy 36.07 years. 14 years was the minimum and 50 years was the maximum age of the patient included in the study. The minimum age of the patient who undergone Emergency obstetric hysterectomy was 17 years, and the maximum age of the patient was 50 years. The highest number of cases (74 out of 291) were in the 36-40 years age group, the lowest number of cases (9 out 291) were in the age 14-20 years age group.

Incidence: The incidence of obstetric emergency hysterectomy in the present study was 1.7151 per thousand. Highest (4.4683 per thousand) incidence was in the 46-50 age group.

The relation between the incidence rate of emergency obstetric hysterectomy and the maternal age was statistically significant ($p < 0.05$).

DISCUSSION

Emergency obstetric hysterectomy is done in cases of placenta previa, placenta accrete and ruptured uterus to save the life of the patients.^[4-7]

Incidence of emergency obstetric hysterectomy in the present study (1.71 per thousand) was lower than other studies except result presented by Ekachai K et al and Yildirim G et al. [Table:2]

Table 2: Incidence of emergency obstetric hysterectomy in various studies.

Sr. No.	Author	Incidence (Per 1000)
1	Ekachai K et al (2006) ^[4]	0.55
2	Sohasrabhojane M et al (2006) ^[5]	3.5
3	Ahmed S et al (2007) ^[6]	2.62
4	Siddiq N et al (2007) ^[7]	5.6
5	Marwaha P et al (2008) ^[8]	3.1
6	Sharma R et al (2009) ^[9]	5.4
7	Javed N et al (2010) ^[10]	4.2
8	Sheikh N et al (2010) ^[11]	6.3
9	Lamba J et al (2012) ^[12]	2.13
10	Ara S et al (2015) ^[13]	3.8
11	Bolagna J (2020) ^[14]	1.35
12	Yildirim G et al (2021) ^[15]	0.91
13	Present study	1.71

Table 3: Distribution of case according age in different studies.

Sr. No.	Author	Age in years (incidence %)			
		21 – 25	26 – 30	31 – 35	>35
1	Sohasrabhojane M et al (2006) ^[5]	13.4%	53.2%	26.7%	6.7%
2	Sharma R et al (2009) ^[9]	18.6%	22.9%	28.6%	30%
3	Sheikh N et al (2010) ^[11]	2.44%	48.78%	29.27%	19.51%
4	Javed N et al (2010) ^[10]	10.5%	28.9%	52.6%	7.8%
5	Present study	11.35%	11.69%	15.81%	58.07%

In the present study, 58.07% (169 out of 291) cases were reported in the age group of more than 35 years, that is quite higher than previous studies. [Table:3]

The present study shows the incidence rate of emergency obstetric hysterectomy increases with maternal age that supports the result presented by previous studies.^[5-7]

CONCLUSION:

Even after increasing the number of hospitals and up-gradation of health facility the number of emergency obstetric hysterectomy is not decreased. Late pregnancy in recent era may lead to high rate of emergency obstetric hysterectomy.

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