

Feto-Maternal Outcome and Complications of Emergency Caesarean Section among the Patients Admitted at a Tertiary Care Hospital in Dhaka City

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Abstract

Background: Caesarean Section done in emergency basis can result some adverse outcome to both the fetus & mother & complications may arise. **Objective:** The purpose of the present study was to see the fetal & maternal outcome or any complications among the pregnant woman who had undergone emergency caesarean section. **Methodology:** This descriptive type of cross sectional study was conducted in the Department of Gynaecology & Obstetrics at Dhaka Medical College Hospital during the period from July 2006 to December 2006. The patients underwent emergency caesarean section for any indication during the mentioned period of study was selected as study population. Among them, 100 cases were recruited in this study. **Result:** Among the cases, maternal morbidity was as high as 64% which were due to haemorrhage, post-operative infection, rise of blood pressure and other complications. Regarding fetal outcome, 92% babies were born with normal birth weight, 33% babies were developed complications which were mostly due to birth asphyxia and prematurity. **Conclusion:** In conclusion, emergency caesarean section has maternal morbidity as well as fetal and neonatal adverse outcome.

Keywords

Foetal Outcome, Neonatal Outcome, Maternal Outcome, Emergency Caesarean Section

1. Introduction

Child birth is a universally celebrated event, yet many thousands of women each day, child birth is experienced not as the joyful event it should be [1]. Pregnancy and parturition should be regarded as a natural and physiological event; however it may be pathological any time before, during and after delivery.

Globally every year about 500,000 maternal deaths and 5 - 6 million perinatal deaths occur and 99% of them are in the developing world [2] [3]. The safe motherhood initiative is a global effort to reduce maternal mortality and morbidity and to achieve a healthy baby by proper management of obstetrical problems. Caesarean section is the most frequently performed major operation in obstetrics and plays an important role in this respect [4]. Modern obstetric care includes liberalized use of caesarean section and it steadily increases in the past 20 years [1]. In emergency situation, caesarean section is done due to unforeseen complication arising either during pregnancy or during labour; this acts as a life saving measure for both the mother and fetus [3]. Every operative procedure has its own hazards; thus, caesarean section is also not free from them [2]. In Bangladesh, the obstetrics care has improved; however, this is not optimal to reduce the maternal mortality and morbidity. During delivery the fetal outcome is also important. Though the rate of fetal mortality and morbidity has been improved the overall scenario of emergency caesarian section is not evaluated. In this regards, it is indispensable to know the situation of fetomaternal morbidity and mortality in Bangladesh [5]. Therefore, the present study was undertaken to observe the maternal and fetal outcome among the pregnant women who had undergone emergency caesarean section.

2. Methodology

This descriptive type of cross sectional study was conducted in the Department of Gynaecology and Obstetrics at Dhaka Medical College Hospital, Dhaka the busiest tertiary care hospital in Bangladesh, during the period from July 2006 to December 2006 for a period of six (06) months. The patients underwent emergency caesarean section for any indication during the mentioned period of study was selected as study population. The cases were selected by random sampling from the patients with an indication of emergency caesarean section but with stable general condition at that moment. Every 10th patient was selected for the study. Data were collected after taking written consent from the properly selected patients. At first, thorough history as per prepared questionnaire, then clinical examination was done and information was collected. Intraoperative complications were noted. With follow up monitoring, post-operative complications were observed. Foetal outcome were noted. All relevant clinical information of the cases was recorded systematically in the predesigned clinical data sheet. Data were checked, verified and compiled by computer; analysis was done by using SPSS and the results were displayed in tables.

3. Results

A total number of 100 emergency caesarian section cases were recruited for this study

after fulfilling the inclusion and exclusion criteria. Among the study population post-operative complication was reported in 64 (64.0%) cases and the rest 36 (36.0%) cases were without any complications (**Table 1**).

Among the 64 maternal complications the most common reported condition was per-operative haemorrhage which was 20 (31.3%) followed by wound infection and UTI which were 18 (28.1%) cases and 9 (14.1%) cases respectively (**Table 2**).

Table 3 shows that most of the babies (92%) were born with normal (2.5 kg to 3.5 kg) birth weight (**Table 3**).

Table 4 shows that foetal complication occurred in 33.0% cases (**Table 4**).

Among 33 fetal outcomes with complication the most common complication was Birth asphyxia which was 8 (24.2%) cases followed by prematurity, neonatal infection and neonatal jaundice which were 7 (21.2%) cases, 6 (18.2%) cases and 5 (15.1%) cases respectively (**Table 5**).

4. Discussion

This study was designed to evaluate the maternal and foetal outcome in emergency

Table 1. Post-operative maternal complications.

Conditions	Frequency	Percentage
With complications	64	64.0
Without complications	36	36.0
Total	100	100.0

Table 2. Maternal outcome found among the study population.

Conditions	Frequency	Percentage
Haemorrhage*	20	31.3
Wound infection	18	28.1
Puerperal Pyrexia	4	6.2
UTI	9	14.1
Anaemia	3	4.7
Headache	5	7.8
Cardiac arrest	1	1.6
Post-operative rise of BP	4	6.2
Total	64	100.0

*Both Per-operative and PPH (Primary & Secondary).

Table 3. Outcome of baby according to birth weight.

Weight	Frequency	Percentage
<2.5 kg	8	8.0
2.5 kg - 3.5 kg	92	92.0
Total	100	100.0

Table 4. Post-operative fetal complications.

Conditions	Frequency	Percentage
With complications	33	33.0
Without complications	67	67.0
Total	100	100.0

Table 5. Foetal outcome found among the study population.

Conditions	Frequency	Percentage
Neonatal Jaundice	5	15.1
Prematurity	7	21.2
Neonatal Infection	6	18.2
Birth asphyxia	8	24.2
Perinatal death	4	12.2
Congenital anomaly	1	3.0
Neonatal death	2	6.1
Total	33	100.0

caesarean section. Several similar types of studies were undertaken in Bangladesh by different researchers to reduce the incidence & complication of emergency caesarean section and to achieve a healthy mother and a healthy baby by proper management of obstetrical problems.

This study reveals that majority (64%) cases developed complication. Among the complications, haemorrhage was 20.0%, which occurred from surgical incision and atony of the uterus & were managed appropriately. Other complications were wound infection 18.0%, anaemia 3.0%, puerperal pyrexia 4.0%, UTI 9.0%, headache 5.0%, post-operative rise of BP 4.0%, one case developed cardiac arrest due to anaesthetic complication. Complications like wound infection, febrile morbidity and endometritis were found more in case of preoperative rupture of membranes prolong duration of labour & repeated per vaginal examination. In a study conducted by Chowdhury *et al.* [6] at SSMC & Mitford Hospital, incidence of wound sepsis was 18.28%, anaemia 7.1%, which were higher than this study. Another study was carried out by Begum [7] in 300 cases among the admitted patients of Dhaka Medical College Hospital & found that wound infection 35.5% which is also higher than this study. This study can also be compared with other studies which were undertaken in abroad. A study by Watson *et al.* [8] has got wound infection in only 1.54% cases UTI in 4.64% after emergency caesarean section which is much less than my study.

In this study, foetal outcome of emergency caesarean section was not good. Here 33% of the babies developed complications and 67% were healthy. Among the complications, 5% developed jaundice, 7% were premature baby delivered due to maternal morbidity, 6% developed neonatal infection, 8% developed birth asphyxia, 2% were neonat-

al death and perinatal death were 4%. These findings are far better than that of Tedesse *et al.* [9] at Ethiopia in which stillbirth was 4.8% and neonatal death were 4.7%. However, findings of this study were higher than Dey and Hatai [10] at Calcutta. They found that neonatal complications were 21.8% in emergency caesarean section and 15.5% in elective caesarean section.

5. Conclusion

Caesarean section, a major surgical procedure for obstetrical management, however, it still has got some morbidity and mortality for the mother and baby. So, it is necessary to take consideration of all the points related to emergency caesarean section along with the factors responsible for emergency caesarean section and outcome of this should be studied much more. Thereby the incidence and complications can be reduced.

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