

Original Article

Indications of Emergency Caesarean Section at a Tertiary Care Hospital in Dhaka City

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Abstract

Background: Caesarean Section is now a common surgical practice during child birth. **Objective:** The purpose of the present study was to see the indication of 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 for a period of 6 months. The pregnant women who were selected for emergency caesarean section during the mentioned period of study were included as study population. The details of the indication of the caesarean section were recorded. **Result:** A total number of 100 cases were recruited in this study. Among the all indications of emergency caesarean section history of previous caesarean section was the most common which was found in 25(25.0%) cases. Foetal distress was the second common indication of emergency caesarean section which was 18(18.0%) cases. Obstructed labour was also reported in 11(11.0%) cases. Antepartum haemorrhage (8.0%) was another indication of emergency caesarean section. Considering the hypertensive disorder preeclamptic toxemia (7.0%), eclampsia (5.0%) and pregnancy induced hypertension (1.0%) were the reported as the indications of emergency caesarean section. Some other indications of emergency caesarean section were recorded which were mal-presentation (7.0%), prolonged labour (6.0%), cephalopelvic disproportion (4.0%) and failed trial labour (4.0%). **Conclusion:** In conclusion history of previous caesarean section is the most common indication for emergency caesarean section obstructed labour, antepartum haemorrhage as well as foetal distress, malpresentation and cephalopelvic disproportion. [*Journal of Science Foundation 2017;15(2):36-40*]

Keywords: Emergency; caesarean section; indication; obstructed labour

Introduction

The safe motherhood initiative is a global effort to reduce maternal mortality and morbidity (Royston and Armstrong 1989). Caesarean section plays an important role in this respect by reducing danger to the life of the mother or the child or both (Ratnam et al., 2003). Modern obstetric care includes liberalized use of caesarean section for the interest of foetal outcome. Antepartum and intrapartum monitoring can identify the foetus at risk who could be better served by abdominal delivery. Maternal indications also responsible for

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emergency caesarean section such as antepartum hemorrhage, impending eclampsia & eclampsia, prolong with obstructed labour, failed trial labour, failed induction of labour, failed forceps and ventose (Sultana 2016).

The incidence of caesarean section varies from country to country, hospital to hospital and community to community (Cowan et al., 1994). In the past 20 years, the rate of caesarean section had steadily increased (Royston and Armstrong 1989). The improved safety of surgery with modern anesthetic techniques, availability of antibiotics, blood transfusion and intravenous fluid those have made caesarean section safer (Azim et al., 2000). In emergency situation, caesarean section is done due to unforeseen complication arising either during pregnancy or during labour and acts as a life saving measure for both the mother and the fetus. Thus, it is necessary to bring all of these points in consideration along with the factors responsible for emergency caesarean section and outcome of this should be studied much more (Bhatla 2001). Therefore, this present study was undertaken to see the indication of emergency caesarean section.

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. 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 and diagrams.

Result

A total number of 100 patients were recruited for this study. The most of the emergency caesarean section cases were performed among the age group of 20 to 24 years which was 35(35.0%) cases followed by 25 to 29 years, 30 to 34 years and less than 20 years of age group which were 31(31.0%) cases, 24(24.0%) cases and 6(6.0%) cases respectively (Table 1).

Table 1: Distribution of Cases According to Their Age

Age Group	Frequency	Percentage
Less Than 20 Years	6	6
20 to 24 Years	35	35
25 to 29 Years	31	31
30 to 34 Years	24	24
More than 35 Years	4	4
Total	100	100

Among the all indications of emergency caesarean section history of previous caesarean section was the most common which was found in 25(25.0%) cases. Foetal distress was the second common indication of emergency caesarean section which was 18(18.0%) cases. Obstructed labour was also reported in 11(11.0%) cases. Antepartum haemorrhage was another indication of emergency caesarean section of which placenta previa (7.1%) and abruptio placentae (1.0%) were the most reported cases. Considering the hypertensive disorder preeclamptic toxemia (7.0%), eclampsia (5.0%) and pregnancy induced hypertension (1.0%) were the reported as the indications of emergency caesarean section. Some other indications of emergency caesarean section were recorded which were malpresentation (7.0%), prolonged labour (6.0%), cephalopelvic disproportion (4.0%) and failed trial labour (4.0%). Bad obstetric history was also reported in 2(2.0%) cases. Cord prolapse in 1st stage of labour and pregnancy with diabetes mellitus were reported in 1(1.0%) case in each (Table 2).

Table 2: Indication for Emergency Caesarean Section

Indications	Frequency	Percent
• H/O previous caesarean section	25	25.0
• Foetal distress	18	18.0
• Obstructed labour	11	11.0
• Antepartum haemorrhage		
○ Placenta Previa	7	7.0
○ Abruptio Placentae	1	1.0
• Hypertensive disorder		
○ Preeclamptic toxemia	7	7.0
○ Eclampsia	5	5.0
○ Pregnancy induced hypertension	1	1.0
• Malpresentation	7	7.0
• Prolonged labour	6	6.0
• Cephalopelvic disproportion	4	4.0
• Failed trial labour	4	4.0
• Bad obstetric history	2	2.0
• Cord prolapse in 1 st stage of labour	1	1.0
• Pregnancy with Diabetes Mellitus	1	1.0
Total	100	100.0

Discussion

Childbirth is an important life event for women (Ratnam et al., 2003). A positive delivery experience may have a long lasting effect on a woman's feelings of self-worth (Flamm et al., 1994). A negative delivery experience can be disempowering and lead to maternal distress or post-traumatic stress disorder (PTSD) and postpartum depression (Cowan et al., 1994). A study demonstrated that the risk factors most strongly associated with post-partum were negative subjective birth experience, operative birth like assisted vaginal or cesarean section (CS), lack of support and dissociation (Bhatla 2001).

Common interventions during delivery are vacuum extraction (VE), forceps delivery and emergency CS performed when VE/forceps delivery is not feasible or failed (Flamm et al., 1994). The performance of fewer interventions in delivery was reported to be associated with a more positive childbirth experience (Sultana 2016). The performance of more obstetric interventions was found to be associated with a traumatic experience (Dutta 2004). However, other studies have suggested that the degree of women's involvement in decision-making, support during labor, effective analgesia and personal expectations may have greater impact than mode of delivery on childbirth experience (Cherney and Lauren 2007).

Age distribution of the mother of emergency caesarean section were found that more than half (90%) of the cases were belonged to age of 20 to 34 years group. This findings are similar to Petrou et al (2001). In this study 4% of cases belonged to more than 35 years. This is similar to Jolly et al (2000). They had shown that pregnant women age 35 to 40 years old were at increased rate of gestational diabetes, placenta previa and thereby increased rate of elective caesarean section and also emergency caesarean section. The age group is nearer (57%) among 20 to 30 years with Tadesse et al (1996) and Banu and Rouf (1995) at different hospitals of Dhaka (16% was >35 years); in India Dey and Hatai (1992) were reported 87% in the age group of 20 to 30 years.

There are several indications of emergency caesarean section (Callister 2004). In majority of the cases this procedure has been applied to save the neonate and the mother. Now-a-days Bangladeshi women have taken only one or two babies. Therefore healthy mother and child is an utmost need during delivery. In this study history of previous caesarean section was the most common indication of emergency caesarean section which was found in 25.0% cases. In Bangladesh, still it is preferable to do the repeat caesarean section without given any trial of labour; however, at abroad now a day's vaginal delivery is allowed after one or two caesarean sections. This has been studied by Cowan et al (1994) at USA and had shown that the success

rate was very high (81.0%) in vaginal delivery after previous caesarean delivery and suggested that a trial of labour after previous caesarean delivery is a safe and desirable option after through patient counseling. A similar finding which is 75.0% success rate of vaginal delivery after caesarean section also has been reported by Flamm et al (1994) in the Kaiser Permanent Medical Centers of Southern California. However, the researchers have recommended that neither repeat caesarean delivery nor trial of labour is risk free.

Foetal distress was the second common indication of emergency caesarean section which was 18.0% cases. Bad obstetrics outcomes have been reported in foetal distress (Banu and Rouf, 1995). Thus emergency caesarean section is needed for this condition. Obstructed labour causes the morbidity and mortality of the neonates during delivery. Therefore, it is strongly recommended that emergency caesarean section should be performed during this situation. In this study obstructed labour has been reported in 11.0% cases. Antepartum haemorrhage is a very critical condition. If it is not properly treated this will lead to the causation of several grave conditions to the mother (Jolly et al., 2000).

To avoid these situations emergency caesarean section should be done. In this study antepartum haemorrhage is found as an indication of emergency caesarean section in 8.0% cases. Interestingly placenta previa (7.1%) and abruptio placentae (1.0%) are the most common reported cases. Considering the hypertensive disorder pre-eclamptic toxemia (7.0%), eclampsia (5.0%) and pregnancy induced hypertension (1.0%) were the reported as the indications of emergency caesarean section. Some other indications of emergency caesarean section were recorded which were malpresentation (7.0%), prolonged labour (6.0%), cephalo-pelvic disproportion (4.0%) and failed trial labour (4.0%). Bad obstetric history was also reported in 2(2.0%) cases. Cord prolapse in 1st stage of labour and pregnancy with diabetes mellitus were reported in 1(1.0%) case in each. In these conditions there is increased chance of maternal and foetal morbidity and mortality (Callister 2004).

Conclusions

In conclusion history of previous caesarean section is the most common indication for emergency caesarean section. There are other several maternal conditions which are the indications of emergency caesarean section which includes obstructed labour, antepartum haemorrhage, preeclamptic toxemia, eclampsia, prolonged labour, pregnancy induced hypertension and failed trial labour. However, there are some other fetal conditions which are the indications of emergency caesarean section which includes foetal distress, malpresentation and cephalopelvic disproportion. Proper management should be taken during caesarean section to avoid the complications of delivery.

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