

**THE PREVALENCE AND INDICATIONS OF PRIMARY CAESAREAN SECTION****\*Dr. Selina Begum**

MBBS, DGO, FCPS, MCPS, Lieutenant Colonel, Classified Specialist in Obstetrics &amp; Gynaecology, Cumilla Combined Military Hospital, Cumilla, Bangladesh.

**\*Corresponding Author: Dr. Selina Begum**

MBBS, DGO, FCPS, MCPS, Lieutenant Colonel, Classified Specialist in Obstetrics &amp; Gynaecology, Cumilla Combined Military Hospital, Cumilla, Bangladesh.

Article Received on 21/04/2021

Article Revised on 11/05/2021

Article Accepted on 01/06/2021

**ABSTRACT**

**Objectives:** In this study analysis of cases where caesarean section was done for the first time in both primipara and multipara women. **Methods:** This observational cross-sectional study was carried out at Dhaka Combined Military Hospital, Bangladesh from January 2020 to March 2020. Total 205 pregnant women who underwent primary caesarean section were considered for the study. **Results:** During the study Primary caesarean section was done in 135 nulliparous women and 70 patients were parous women who had previous vaginal delivery, 92 cases were belong to 21-25 years age group. Dystocia (failure to progress, CPD) in 79 cases (38%). 62% study group went to hospital for antenatal care, Post-operative morbidity was 12%, maternal mortality was none and neonatal death were only 2 (0.97%). **Conclusion:** The increase in caesarean section rate may be due to combination of factors: increase safety of procedure, increase use of fetal monitoring. Medico-legal situation, obstetric indications and maternal request. Among the indication's dystocia is the most common. Improved antenatal and intrapartum care can improve the obstetric outcome and low caesarean rate.

**KEYWORDS:** Primary Caesarean section, nullipara, parous women.**INTRODUCTION**

Caesarean section is one of the most commonly performed surgical procedures in the world and can be life saving for the child, the mother, or both in certain cases.<sup>[1]</sup> There is world wise increase in caesarean section rate in last few years.<sup>[2]</sup> The highest rate of caesarean section is in Chile 40%.<sup>[3]</sup> Initiative to reduce the high rate of caesarean section it is important to focus on the indications of caesarean section –to eliminate inappropriate indications. Caesarean section audit – which plays an important role in analysis of rate, indications and outcomes of caesarean section, helps to modify the trend of caesarean delivery.<sup>[3]</sup> In this study our main goal is to evaluate the prevalence and indications of primary caesarean section in Dhaka Combined Military Hospital, Bangladesh.

**Objective**

- To assess the prevalence and indications of primary caesarean section.

**RESULTS****Table-1: Distribution of the study group according to delivery.**

Delivery	Number
Total number of deliveries	709
Number of primary caesaren section	205

**MATERIALS AND METHOD**

- It was observational cross-sectional study. The place of study was department of Gynae and Obstetrics, Dhaka Combined Military Hospital, Bangladesh. Data were collected from January to March 2020. A total of 205 cases Who underwent primary caesarean section were considered for the study. Cases with history of previous caesarean

Section, VBAC deliveries were excluded from the study

**Data analysis**

- All collected data were coding and input in SPSS for further analysis. Both descriptive and inferential statistics were done.

Primary caesarean section was 28.91% of all deliveries.

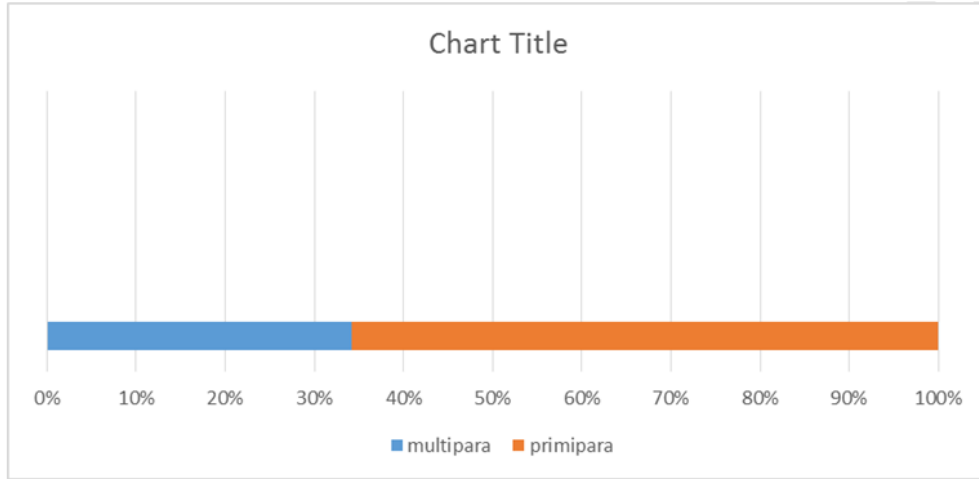
**Table-2: Age distribution of study group.**

20 years and below	21-25	26-30 years	31-35 years	36-40 years	More than 40 years
32	92	66	8	6	1

Caesarean section rate is more in age group 21-25 years (44.88%)

**In figure -1 shows parity distribution of the study group.**

Among 205 cases of primary caesarean section multipara were 70(34.15%) and primipara was 135 cases (65.85%).

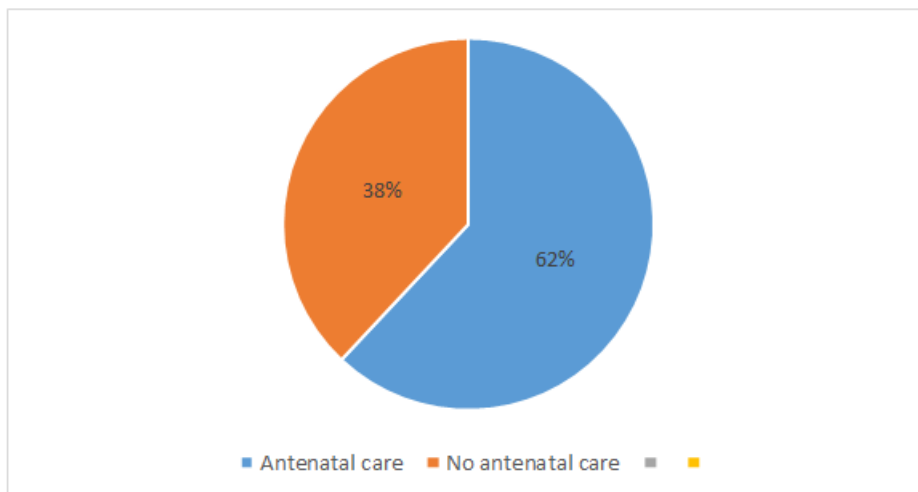


**Table-3: Distribution of patients according to indication of primary caesarean section.**

Indications	N
Dystocia (failure to progress and CPD)	79
Foetal distress	23
Medical disorder (GDM, PIH)	52
Subfertility (IVF,IUI)	16
Malpresentation	7
Oligohydramnions	13
IUGR	9
Placenta praevia	3

Dystocis (failure to progress and CPD) is involved in 79 cases (38.55%).

**In Figure-2 We found 62% of the patients came for antenatal care in hospital.**



Following Caesarean section 12 % of women had postoperative morbidity. Wound infection being the commonest accounting for 3%, followed by febrile morbidity 2.5%, Urinary tract infection 2.5%, respiratory tract infection 0.5% and secondary PPH 0.5%. We did not have any maternal mortality.

38 Neonates were admitted to hospital in view of Birth asphyxia, meconium aspiration syndrome, septicemia, convulsion and congenital anomaly. Early neonatal death was seen in 2 babies. PNMR is being 9.75/1000 birth.

**Table-4: Postoperative complications of the study group and neonatal outcome.**

Postoperative complications	%
Post-operative morbidity	12%
wound Infection	3%
Febrile morbidity	2.5%
Urinary tract infection (UTI)	2.5%
Respiratory tract infection	0.5%
PPH	0.55%
Neonatal outcome	N
Early neonatal death	2
PNMR	9.75/1000 birth

## DISCUSSION

In one study, majority 58 (52.7%) of the patients belonged to the age group 21-30 years where the mean age was found  $27.5 \pm 9.5$  years.<sup>[5]</sup> Similar observation was found by another study where most of the patients 216 (55.95%) belonged to the age group of 26-30 years followed by 123 (31.86%) in age 21-25 years and 41 (10.62%) patients in age group of 31-35 years. Only 5 patients (1.29%) were above 35 years of age.<sup>[6]</sup> Where as in our study 92 cases belong to 21-25 years age group followed by 66 cases belong to 26-30 years age group, 32 cases belong to 20 years and below age group, 8 cases belong to 31-35 years age group, 6 cases belong to 36-40 years age group and only 1 cases belong to more than 40 years age group.

In this one report reported that, majority 95 (86.4%) patients were multigravida and 15 (13.6%) were grand multigravida.<sup>[7]</sup> Another study observed that distribution of patients according to parity shows that most of the patients (49.73%) were at gravida-2 followed by gravida-3 (32.12%). It reflects that in the last few years, family size has been shifted from 5-6 children per couple to 2-3 children per couple.<sup>[8]</sup> Where as in our study among 205 cases of primary caesarean section multipara were 70(34.15%) and primipara was 135 cases (65.85%).

Another study showed that, majority 73 (66.4%) patients were unbooked and 37 (33.6%) were booked. This fact reveals poor level of antenatal booking of the patients in Bangladesh. This may be because of low level of female literacy and lack of public awareness regarding the need for antenatal checkup.<sup>[9]</sup> Where as in our study 62% of the patients came for antenatal care in hospital.

Also, another study reported that, majority 37 (33.6%) of the patients had fetal distress. Other indications were obstructed labour 12 (10.9%), breech presentation 12 (10.9%), pre-eclampsia 10 (9.1%), severe oligohydromnios 7 (6.4%), APH 7 (6.4%),

placenta previa 6 (5.5%), failed induction 5 (4.6%), transverse lie 4 (3.6%), CPD 3 (2.7%), IUGR 3 (2.7%), eclampsia 2 (1.8%), face presentation 1 (0.9%), and cord prolapse 1 (0.9%).<sup>[10]</sup>

Another study found most common indication for caesarean section in their study was malpresentation 115 (29.79%), followed by fetal distress in 71 (18.39%) patients, APH in 71 (18.39%), preeclampsia and eclampsia in 39 (10.1%), obstructed labour in 33 (8.55%) patients and cephalopelvic disproportion each and twin pregnancy in 21 (5.44%).<sup>[11]</sup>

Other study observed that, in the post-operative period, 83 (75.5%) patients were healthy. Rest of them had sepsis in 12 (10.9%), URTI in 9 (8.2%), wound infection in 3 (2.7%), postoperative ileus in 2 (1.8%) and PPH in 1 (0.9%).<sup>[12]</sup> Most common maternal complications were found in one study were pyrexia in 40 (10.36%) patients, followed by upper respiratory tract infection in 32 (8.29%) patients; wound infection in 11 (2.85%) patients and abdominal distension in 6 (1.55%) patients.<sup>[12]</sup> which was very much consistent to our study where following Caesarean section 12 % of women had postoperative morbidity. Wound infection being the commonest accounting for 3%, followed by febrile morbidity 2.5%, Urinary tract infection 2.5%, respiratory tract infection 0.5% and secondary PPH 0.55. We did not have any maternal mortality.

During the study 38 Neonates were admitted to hospital in view of Birth asphyxia, meconium aspiration syndrome, septicemia, convulsion and congenital anomaly. Early neonatal death was seen in 2 babies. PNMR is being 9.75/1000 birth. Which was similar to other studies.<sup>[5-9]</sup>

## CONCLUSION

From our study we can conclude that, the increase in caesarean section rate may be due to combination of factors. Among maternal obstetrical and medical

indications, the relative subjective diagnosis of dystocia is the most common cause and presents a high-yield opportunity for preventing the first caesarean section. Improved antenatal and intrapartum care is necessary for the better obstetric outcome and to reduce caesarean rate.

#### REFERENCE

1. Sharmila G, Nishitha C. Study of primary caesarean section in multigravida. *J Health Sci.*, 2016; 3(4): 89-94.
2. Rajput N, Singh P, Verma YS. Study of primary caesarean section in multigravida patients. *Int J Reprod Contracept Obstet Gynecol.*, 2018; 7: 185-91.
3. Bhandari BR. Indications and Fetal Outcomes of Caesarean Section in Sindhu Sadabahar Hospital, Sindhupalchok. *Kathmandu Univ Med J.*, 2017; 60(4): 284-7.
4. Nahar K. Indications of Caesarean Section - Study of 100 cases in Mymensingh Medical College Hospital. *Journal of Shaheed Suhrawardy Medical College*, 2009; 1(1): 1-10.
5. Sharma R, Dogra P. Indications and rate of caesarean delivery at tertiary care hospital: a retrospective study. *Int J Reprod Contracept Obstet Gynecol.*, 2017; 6: 4367-71.
6. Sethi P, Vijaylaxmi S, Shailaja G, Bodhare T, Devi S. A study of primary caesarean section in multigravidae. *Perspect Med Res.*, 2014; 2: 3-7.
7. Unnikrishnan B, Rakshith P, Aishwarya A, Nithin K, Rekha T, Prasanna P, et al. Trends and Indications for Caesarean Section in a tertiary care Obstetric Hospital in Coastal South India. *AMJ.*, 2010; 3(12): 821-5.
8. Rowaily MA, Fahad AA, Mostafa AA. Caesarean section in a high-parity community in Saudi Arabia: clinical indications and obstetric outcomes. *BMC Pregnancy Childbirth*, 2014; 14(92): 1-10.
9. Desai E, Leuva H, Leuva B, Kanani M. A study of primary caesarean section in multipara. *Int J Reprod Contracept Obstet Gynecol.*, 2013; 2(3): 320-4.
10. Himabindu P, Sundari MT, Sireesha KV, Sairam MV. Primary caesarian section in multipara. *IOSR-JDMS.*, 2015; 14(5): 22-5.
11. Rao JH, Rampure N. Study of primary caesarean section in multiparous women. *J Evol Med Dental Sci.*, 2013; 2(24): 4-7.