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Epidemiological Determinants affecting Caesarean Section in a Rural Block of West Bengal

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Abstract: *Caesarean section is the removal of a child through an incision in the abdominal wall of an intact uterus. Caesarean section is indicated in cases where vaginal delivery is not possible or safe for mother & or baby. The present study was conducted to analyze the data of Caesarean Section done in a remote rural block of West Bengal .200 cases of Lower Segment Caesarean Section done from April 2013 to May 2015 in Sabang Rural Hospital, Paschim Midnapur is included in this study. The Demographic parameters including the age, parity, indications & complications of Caesarean Section have been studied and analyzed.*
Keywords: *Caesarean Section, Rural Block*

I. Introduction

Caesarean section is the removal of a child through an incision in the abdominal wall of an intact uterus. Caesarean section is indicated in cases where vaginal delivery is not possible or safe for mother & or baby. The Prevalence of Caesarean Section increase fastest among rural, poor and less educated women. For example, while the rate relative risk of Caesarean delivery more than tripled among urban women during the 20 years span, they increased by a factor of 15 among women living in rural areas(1). Both increased demand & increased supply have been proposed as drivers. On the demand side, women may request a caesarean section because they fear the consequences of vaginal delivery. (2.3). More evidence for this reasoning comes from the high proportion of indications for caesarean section categorized as "woman's request" or "due to social factors" in hospital records. In India, a large proportion of deliveries take place at home. So in large proportion of cases, though Caesarean Section is required, women do not get it due to lack of essential facilities. The rural areas in most parts in India do not have facilities for conducting even a normal delivery. The women having a delivery complication in the rural sector usually turns up in to the places where they are forced to go for normal delivery because of absence of adequate Caesarean Section facilities (4).

II. Material And Methods

A health facility based case finding study, cross-sectional study with purposive sampling was conducted in nature was undertaken in a rural block of the State of West Bengal from April 20013 to May 2015. Baseline demographic profile like age, parity, clinical indications requiring Caesarean Section was noted and analyzed, as also the complications that followed immediately after the Caesarean delivery. (10)

III. Results and tables

Table 1: Table showing the Age and Parity wise Distribution of women undergoing Caesarean Section (n=200):

Age in years	**Number (Percentage)**
<25 years	128 (64%)
25 – 30 years	50 (25%)
>30 years	22 (11%)
Total	200 (100%)
Parity	**Number (Percentage)**
0	128 (64%)
1	50 (25%)
2	12 (6%)
3	6 (3%)
<3	4 (2%)
Total	200 (100%)

TABLE 2: Table showing the Distribution of the Indications for Caesarean Section (n=200) :

Indications for Caesarean Section	Number (Percentage)
Non progress of labor	76 (38%)
Fetal Distress	42 (21%)
Breech	8 (4%)
PIH	20 (10%)
CPD	12 (6%)
PROM	4 (2%)
Post CS	32 (16%)
Others	6 (3%)
Total	200 (100%)

Table 3: Table showing the Distribution of the Complications following Caesarean section (n=200)

Complications following Caesarean section	Number (Percentage)
Post-Partum Hemorrhage	8 (4%)
Fever	24 (12%)
Urinary Tract Infection	16 (8%)
Wound Infection	12 (6%)
Spinal Headache	14 (7%)
Eclampsia	2 (1%)

IV. Discussion

In our study, the common age group where Caesarean Section is found to be the highest among women less than 25 yrs of age (Table 1) where prevalence is found to be 64%, followed by women between 25 to 30 years of age and least among women with age more than 30 years. Parity wise distribution is found to be highest among the Nulliparous, followed by Primipara. On the other hand, a study by Mohammad S. Hiasat. showed the age distribution to be about 34.8% among women less than 25 years of age, 21.6% among women more than 35 years of age , but the highest prevalence was found among 25 to 35 years of age , i.e. 43.6%. It is noteworthy that the prevalence of Caesarian Section was found to be highest as the parity increased (Table 1) , i.e. in nulliparous, it was in the order of just 13.1%, followed by 12.4% in Primiparous women, and 14.6%, 21.9% and 37.9% in subsequent pregnancies (5).

Common indications of cesarean section in our study (Table 2) were found to be non-progress of labor (38%), fetal distress (21%), post Caesarean cases (16%), Pregnancy Induced Hypertension (10%), Breech (4%), Cephalo Pelvic Disproportion (6%), Premature Rupture of Membrane (2%) and others (3%), whereas a study conducted by G Sing and E D Gupta showed common indications to be post Caesarean cases (29.7%), non-progress of labor (25.4%), fetal distress (12.2%), breech presentation (11.3%), Ante-Partum Hemorrhage (5.9%), Cephalo Pelvic Disproportion (5.1%), Pregnancy Induced Hypertension (4.8%) and others (5.6%) (4).

Common complications of cesarean section in our study was found to be Post-Partum Hemorrhage (4%), Fever (12%), Urinary Tract Infection (8%), wound infection (6%), spinal Headache (7%) and eclampsia (1%) . In Van Ham MA et al study prevalence of Post-Partum Hemorrhage was similar to our study, but prevalence of fever was the highest, i.e. 24.6%, and Urinary Tract Infection was found to be 3%, (6) whereas, in Valgeirsdottirh et al study prevalence of Post-Partum Hemorrhage was to the order of 16.5% and Fever accounted for 12.2% of the cases which was in conformity to our study. (7).

V. Conclusion

This Study reveals that in s remote area where there is lack of infrastructure, including unavailable blood transfusion facility and majority of the cases are done on emergency basis, the complication is not much more and the outcome is satisfactory.

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