

INDICATIONS FOR CAESAREAN SECTION IN NULLIPAROUS AND MULTIPAROUS WOMEN

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ABSTRACT: INTRODUCTION: Within few years' number of caesarean sections increased dramatically in our hospital. This study was done to find out whether increasing the number of caesarean sections were due to improving patients transportation and maternal and child welfare program or it was due to caesarean section were performed for improper indication. **METHOD AND MATERIAL:** It is a retrograded study conducted on the bases of caesarean section performed in Bundelkhand Medical college associated hospital from October 2013 to September 2014. 1536 caesarean section were performed of this 1104 (71.87%) were nulliparous and 432 (23.43%) were multiparous. During this period only 5 cases of rupture uterus were reported. All are multiparous women with no history of previous section. **RESULT:** The most common indication of caesarean section among nulliparous women (23.43%) was cephalo-pelvic disproportion with other complications like fetal distress, premature rupture membrane, PIH, mal-presentation. Among multiparous women the most common indication for caesarean section was previous caesarean section with Cephalo-pelvic disproportion (26.62%) **CONCLUSION:** In our hospital majority of caesarean sections were compulsory for maternal and fetal wellbeing. Minority of cases there may be difference of opinion or error of judgment. But attempts should be made to decrease even these minorities of cases by critical evaluation of decision to perform caesarean section especially in nulliparous women. First caesarean section itself an indication for subsequent caesarean section but in these cases also presence of other risk factors should identified and if possible careful trial of labour should perform.

KEYWORDS: Caesarean rate; previous caesarean section; indications of caesarean section, rupture uterus

INTRODUCTION: A Caesarean section (C-section) is an operative procedure whereby the fetuses after the end of 28th week are delivered through an incision on the abdominal and uterine walls.⁽¹⁾ Caesarean section is usually performed when vaginal delivery will put the mother or child's health or life at risk. In recent years, Caesarean section rates are rising.⁽²⁾

Absolute indications for lower segment caesarean section includes-central placenta praevia, cephalopelvic disproportion, pelvic mass causing obstruction, advance carcinoma cervix, vaginal obstruction (atresia, stenosis). relative indications are-cephalo-pelvic disproportion, previous caesarean section, fetal distress, failure to progress, dystocia (due to large fetus, small pelvis, inefficient uterine contraction), antepartum hemorrhage (placenta praevia, abruptio placentae), malpresentation, bad obstetric history (history of recurrent fetal wastage), severe pre-eclampsia, eclampsia and any condition where vaginal delivery possible with or without aids but risk to mother and/or her baby are high.

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Caesarean section confers an increase in maternal mortality and morbidity as well as having considerable financial implications.. The changing trends in the rates of caesarean section for various indications may be explained partly by improved anaesthetic and neonatal techniques. Cultural changes and expectations in the general population and obstetricians' fear of litigation may have made the changing rate and indications for caesarean section seem more acceptable(3).

The main aim of this study was to investigate indications. Our study will focus on the indications that are dominant in Bundelkhand region. Furthermore, increased knowledge about current indications could contribute to reduce the prevalence of C-S through correct information and advice to pregnant women and health workers.

METHOD AND MATERIAL: It is a retrograded study conducted on the bases of caesarean section performed in Bundelkhand Medical college associated hospital from October 2013 to September 2014. 1536 caesarean section were performed during this period. Out of 1536 caesarean section 1104 were nulliparous and 432 were multiparous. 72 patients were below 20 years of age while 120 were above 30 years of age majority 1344 patients had age between 20 to 30 years. During this time only 5 cases of rupture uterus were reported. All are multiparous women with no history of previous section.

Bundelkhand is under developing part of Madhya Pradesh. In recent years governments took many initiative for maternal and child welfare. It includes rapid transportation of the pregnant women to tertiary center like our center by the means of Jananni Express and 108 ambulances. Promotion of institutional delivery by the means of Jananni Suraksha Yojana. Also government improves obstetric and neonatal care unit, increases number of medical and paramedical staff.

Within few years these numbers of caesarean section increased dramatically in our hospital. This study was done to find out whether increasing the number of caesarean sections were due to improving patients transportation and maternal and child welfare program or it was due to caesarean section were performed for improper indication.

Maternal Age	Numbers	Percentage
< 20 years	72	4.68%
20- 30 years	1344	87.5%
> 30 years	120	7.81%

Table 1: Maternal age during caesarean section

S. N.	Indications	No. of patients
1	Cephalo-pelvic disproportion with other indication like fetal distress, premature rupture membrane, PIH, malpresentation	360
2	Cephalo-pelvic disproportion	168
3	Fetal distress	48
4	Failure to progress	172
5	Malpresentation	186
6	P. I. H (Pregnancy induced Hypertension)	22

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7	PIH with malpresentation	37
8	Placenta Praevia	21
9	Placental abruption	11
10	Twin	19
11	post maturity	51
12	HIV, infection, or other causes	09

Table 2: The indication for caesarean section in nulliparous women

S. N.	Indications	No. of patients
1	Previous caesarean section with Cephalo-pelvic disproportion	115
2	Previous caesarean section	14
3	Previous caesarean section with other complications like scar tenderness, premature rupture membrane	96
4	Cephalo-pelvic disproportion	27
5	Malpresentation	42
6	P.I.H (Pregnancy induced Hypertension	35
7	PIH with malpresentation	23
8	Placenta Praevia	18
9	Twin	7
10	post maturity	17
11	HIV, infection, or other causes	38

Table 3: Indications of caesarean delivery in multiparous

Parity	Number of cases	history of previous caesarean section
Nulliparous	nil	nil
Multiparous	5	Nil

Rupture uterus

RESULT: In our hospital 71.87% of caesarean sections were performed in nulliparous women while 28.12 % caesarean sections were performed in multiparous women. The most common indication responsible for 23.43% of caesarean section among nulliparous women were cephalo -pelvic disproportion with other complications like fetal distress, premature rupture membrane, PIH, malpresentation. Isolated Cephalopelvic disproportion responsible for 10.93%, isolated fetal distress responsible for 3.12, Malpresentation (Breech, brow, transverse lie, hand presentation etc) responsible for 12.10% of caesarean section among nulliparous women.

Among multiparous women the most common indication for caesarean section was previous caesarean section with Cephalo-pelvic disproportion (26.62%), isolated previous caesarean section responsible for 3.24%, Previous caesarean section with other complications like scar tenderness, premature rupture membrane responsible for 22.22% of caesarean section in multiparous women.

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DISCUSSION: Caesarean section (CS) was introduced in clinical practice as a lifesaving procedure both for the mother and the baby.^[4] It is underuse in low income settings, and adequate or even unnecessary use in middle and high income settings.^[5-8] The purposes of this study was to find out whether increasing the number of caesarean sections were due to improving patients transportation and maternal and child welfare program or it was due to caesarean sections were performed Indiscriminately.

Caesarean section rates are high and continue to rise in developed countries.^[9,10,11] Caesarean section rates are also increasing in developing countries but in 1985, representatives of a study group convened by the World Health Organization wrote, "there is no justification for any region to have caesarean section rates higher than 10–15%."^[12] Although levels of 10–15% were considered high but acceptable

Indiscriminate use of caesarean section can have a negative impact on maternal and neonatal health has been raised^[13,14,15,16] and has recently received support from a number of studies. On the other hand, it has been argued that reducing caesarean delivery rates would have a detrimental effect on mothers' and infants' health, and that patients' choices should be considered.^[17]

various ecological research^[18] support the hypothesis that, at aggregate level, caesarean section rates respond strongly to income, or to factors that are themselves strongly associated with income. It is well known fact that maternal and neonatal deaths have significantly reduced in the last century, in large part as a result of increased application of technology during labour and childhood.^[19]

Our study demonstrates that 71.87% of caesarean sections were performed in nulliparous women while 28.12 % caesarean sections were performed in multiparous women. Among nulliparous women 23.43% of caesarean sections were perform for cephalo -pelvic disproportion with other complications like fetal distress, premature rupture membrane, PIH, malpresentation. Isolated Cephalopelvic disproportion responsible for 10.93%, Isolated fetal distress responsible for 3.12%. These data demonstrate that only 14.05 % (Isolated Cephalopelvic disproportion and Isolated fetal distress) of cases there may be difference of opinion error of judgment. Remaining of cases required compulsory caesarean sections.

Among multiparous women the common indication for caesarean section were previous caesarean section with Cephalo-pelvic disproportion (26.62%), Previous caesarean section with other complications (scar tenderness, premature rupture) responsible for 22.22% of caesarean section. 3.24%.of caesarean section in multiparous women is due to previous cesarean section. In this group of patients difference of opinion or error of judgment possible. In remaining large majority of cases caesarean sections were compulsory.

After one caesarean section there is 67% chance of having repeat caesarean delivery.^[20] The reluctance to permit a trial of labour following one LSCS is probably due to fear of uterine rupture in labour. it can be catastrophic leading to perinatal death (1/2000) and very rarely maternal death.(16, 17, 18). Our study showed that only 5 cases of rupture of uterus were reported. All these were neglected late presenting case. All are multiparous with no history of previous section. It shows that fear of rupture of uterus is out of proportion. careful trial of labour should be taken close monitoring of scar tenderness and other risk factor especially if inter-pregnancy interval is less than one and half year.

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CONCLUSION: In our hospital majority of caesarean sections were compulsory for maternal and fetal wellbeing. Minority of cases there may be difference of opinion or error of judgment. But attempts should be made to decrease even this minority of cases by critical evaluation of decision to perform caesarean section especially in nulliparous women. First caesarean section itself an indication for subsequent caesarean section but in these cases also presence of other risk factors should identified and if possible careful trial of labour should perform. The practice of evidence based obstetrics, combined with individualized care according to local setup, would definitely go a long way in balancing the rate of caesarean section.

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