

**STUDY TO EXAMINE THE CAESAREAN SECTION RATES IN
OBSTETRICS PRACTICE USING THE ROBSON 10 GROUPS****Dr Pratibha. Patil¹, Dr.Sanjay.Patil^{2*}**¹Associate Professor, Dept. of Obstetrics and Gynecology, RIMS, Raipur, Chattisgarh ,India.^{2*} Professor, HOD, Dept. of Obstetrics and Gynecology, RIMS, Raipur, Chattisgarh ,India.

Conflicts of Interest: Nil

Abstract:

Caesarean section rates seem to vary by country, within a country, type of facility and the level and type of care givers .WHO stated in 1985 that no region should exceed rates higher than 10 -15% of CS. They say that CS rates more than 15% are not associated with additional reduction in maternal and perinatal morbidity and mortality. There are a number of risks associated with CS for both mother and baby. Cost of CS is significant. ROBSON proposed a new classification system to allow critical analysis according to characteristics of pregnancy the present study aims to test the implementation of Robson 10 group classification for obstetric categories at a Medical college hospital. All obstetric information parity, mode of delivery, previous CS, indications ,gestational age ,onset of labour, spontaneous or induced labour were evaluated .Each case was classified into one of 10 mutually exclusive category according to obstetrics characteristics. Data analysis was done and was evaluated for the distribution of cases among all 10 ROBSON classification groups. Group1 accounted for largest proportion of deliveries and 37% contribution to overall C/S rate followed by Group 5 accounted for 87% C/S birth rate and 30% to overall contribution.. It can be concluded that proper auditing of indications of caesarean section coupled with uniform use of Robson 10 criterion universally can help us in objective assessment of rising rate of caesarean section in society in general causing great economic burden all over the world either to government or to patient's pockets. The internal audit by using this criterion is necessary to keep caesarian rate in check.

Key words: Caesarean section (CS), Robson classification, delivery**INTRODUCTION:**

Caesarean section rates seem to vary by country, within a country, type of facility [private versus public] and the level and type of caregivers. WHO stated in 1985 that no region should exceed rates higher than10 -15 % of CS. They say that CS rates more than 15% are not associated with additional reduction in maternal and perinatal morbidity and mortality. Although the mean worldwide total CS rate is estimated around 15%.There are enormous regional differences for instance Africa has lowest 3-10 % .Eastern Asia [rural and urban]

has 30 -50%. In teaching hospitals in India CS rates is 25%. ROBSON proposed a new classification system to allow critical analysis according to characteristics of pregnancy. There are a number of risks associated with CS for both mother and baby. Cost of CS is significant. Cost will increase with subsequent deliveries. But cost of not doing a CS may also be significant. Hence in 2010 WHO has withdrawn its official statement.

Analyzing the CS rates in different countries, including primary versus repeat CS and potential reasons of these, provide important

insights into the solution for reducing the overall CS rates.

ROBSON proposed a new classification system to allow critical analysis according to characteristics of pregnancy.

CS AUDIT is needed because

1. CS rates are not homogeneous
2. They have to be analyzed in standard way
3. In practice merely implementing good quality audit and ensuring simple organizational changes results in appropriate CS rates.

ROBSON 10 GROUP classification was chosen because

1 it is designed for long term and short term analysis of determinants and implications of CS.

2It is possible to compare CS rates over time in one unit and between different units.

3It is based on obstetric concepts and their parameters. These concepts are prospective, mutually exclusive, totally inclusive, simple to understand and implement.

Aims and objectives.

Aims: The present study aims to test the implementation of Robson 10 group classification for obstetric categories at medical college hospital. In the context of high CS rate, an Audit and feedback study is performed to improve obstetric care.

Objective: To identify exactly which types of women are having CS births.

Material and methods.

This retrospective study was conducted at medical college hospital for a period of 12 months. Clinical records of all births during one year were evaluated. All obstetric information parity, mode of delivery, previous CS, indications, gestational age, onset of labour, spontaneous or induced labour were evaluated. Each case was classified into one of 10 mutually exclusive category according to obstetrics characteristics. Data analysis was done and was evaluated for the distribution of cases among all 10 ROBSON classifications for

- 1 Total births
- 2 For Caesarean birth rates
- 3 Contribution of each group to overall CS rates

Results:

Total number of deliveries in year =5623. Out of which 1673 underwent CS.

Overall CS rate=5623/1673==30%.

The groups were further classified using ROBSON 10 criteria

Table below shows Total births, Caesarean birth rates, Contribution of each Robson group to overall CS rates

Table 1:

ROBSON's 10 GROUPS	WOMEN IN GROUP	DELIVERIES	C/S	C/S BIRTH RATE	CONTRIBUTION TO OVERALLC/S
1.Nulliparous,single,cephalic,37wks,spontaneous labour	2114	1489	625	30%	37%
2.Nulliparous, single cephalic.>or =37wks,inducedlabour	317	146	171	54%	10.2%
3.Multiparous [excluding previous c/s], single cephalic.> or =37wks,	2170	1960	210	10%	12.5%

spontaneous labour					
4.Multiparous [excluding previous c/s,single,cephalic.>37wks,induced labour.	103	72	31	30%	30%
5.Previous c/s,single cephalic.>37wks	588	72	512	87%	31%
6.All nulliparous breeches	82	19	63	77%	4%
7.All multiparous breeches[including previous c/s]	31	21	10	32.2%	1%
8.All multiple pregnancies[including previous c/s	70	41	29	41.4%	2%
9 All abnormal lies[including previous c/s]	28	08	20	71.4%	1.1%
10.All single cephalic ,<37 wks[including previous c/s.	122	120	2	2%	0.1%

It can be seen from above table that Group 1 [nulliparous, single ,cephalic,>37 weeks] accounted for largest proportion of deliveries and 37% contribution to overall C/S rate followed by Group5[women with single cephalic previous lscs. > 37 weeks] accounted for 87% C/S birth rate and 30% to overall contribution.

Discussion:

In last 3 decades there is concern about increasing C/S rates. The C/S rates Australia range from 28% in Tasmania to 32% in Queensland, In NORWAY, it is 13.9 %. In Asian countries 28%.USA reported C/S rate 32 %. While another study in IRAN shows increase from 35% to 40%. While this study gave the C/S rate of 30%, it is still above the WHO criteria.. GROUP 1= is the next largest group of women admitted in labour ward. This group accounted for 30% C/S birth rate and 38% contribution to overall C/S rate. GROUP 2=accounted for 54% C/S rate and 10% contribution to overall rate.. The first step in reversing the caesarean section rate was to identify which women are having C/S. At a tertiary hospital we always assume that our complex mix of patients contributes to higher

C/S rates. However closer examination has identified which type of women are having C/S BIRTH RATES. In our opinion the groups that were identified were GROUP 5, GROUP 1 and GROUP 2. GROUP 1 and GROUP 2 are most important gold standard in any labour ward. Their contribution to maternal and perinatal outcome in any maternity unit is considerable. It is the driving force behind the increase in C/S rates. Our internal audit ROBSON 10 classification reveals repeat C/S is on rise in GROUP 5. And the simplest way of reducing the size is by restricting primary C/S. Hence controlling primary C/S in low risk primigravida by strict protocol and careful monitoring during labour, the major contributory factor for indication of C/S can be brought down substantially and will have longterm beneficial effect on overall society. This study helps us to keep reasonable targets. Target for GROUP 1—keep C/S rate between 5% to 10%. Target for GROUP 2---keep the induction and C/S rate to minimum ,not higher than 30%. The C/S rate for GROUP 1 AND 2 together should be between 15% TO 17%. GROUP 7,8 ,9,AND 10 should not be targeted.

GROUP 5 reasonable target is 50% to 70%.
Aim is short, spontaneous labour.

GROUP 5 should be treated with respect due to unpredictable nature of uterine rupture. This GROUP should be highlighted with special intervention procedures, encouraging women for vaginal birth.

Conclusion.

Thus, it can be concluded that proper auditing of indications of caesarean section coupled with uniform use of Robson 10 criterion universally can help us in objective assessment of rising rate of caesarean section in society in general causing great economic burden all over the world either to government or to patient's pockets. The internal audit by using this criterion is necessary to keep caesarian rate in check.

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