

Study on the Rate and Indications of Primary Cesarean Section in a Tertiary Care Centre in Patna

Jayoti Malhotra¹, Swaroop Ranjan Nanda²

ABSTRACT

Background: Caesarean section can save the lives of both mother and foetus under certain conditions. However Overuse of CS has led to majority of women in subsequent pregnancy landing in previous CS . Guidelines for caesarean sections must be so devised such as to maintain a low rate of primary c sections that is consistent with WHO standards.

Objective: To determine the primary (CS) cesarean section rate in a Tertiary care hospital in Patna. To study the indications for the primary CS.

Methodology: This was a Cross sectional study. This was study was carried out from from 1st April 2022 to 31st July 2022. This study was carried in the department of Obstetrics and Gynecology Kurji Holy Family Hospital, Patna

Results: Of 828 C Sections 48.3 % were Primary C sections of which 37% cases were of elective C sections and 63% were of Emergency C sections.

Key Words: Primary CS, Placenta Previa, Placenta Acreta spectrum,NRCTG, Failed IOL

Introduction

Caesarean section can save lives of both mother and foetus and is very beneficial when labour is stalled or progresses poorly. Yet, has ramifications for upcoming pregnancies and is linked to immediate maternal and foetal risk.

Rate of CS has been rising world wide.¹ but sadly not associated with corresponding decrease in perinatal mortality rate. One of the main cause of the rising

CS rate is Primary CS . Primary CS is defined as CS on women for very first time² Overuse of CS has led to majority of women in subsequent pregnancy landing in previous CS. Large population based study from canada shows increased risks of severe maternal morbidity 3 times more common for CS as compared to Vaginal Delivery (2.7% to 0.9%)³ Long term complication of CS especially Placenta Previa (1% in previous one) (3% in previous two) and Placenta Acreta Spectrum cannot be ignored.⁴

3 important Factors leading to escalating CS rates⁵ Patient preferences; Practice differences in Health Care Professionals; Protocol differences. Guidelines for caesarean sections must be devised and put into

1. MBBS, MS, Senior Consultant, Dept. of Obs and Gynae, KHFH, Patna, Bihar

2. MBBS, DNB, Dept. of Obs and Gynae, KHFH, Patna, Bihar

Corresponding author: Dr Jayoti Malhotra

place in order to maintain the rate at a low level that is consistent with WHO standards.

In order to cut down the increased CS rate look we must look into indications of the primary CS and, How can we modify them. Present study was done to determine the common indications of Primary CS performed at KHFH.

Methodology

Type of study: This was a Cross sectional study

Duration of study: 1st April 2022 to 31st July 2022.

Place of study: This study was carried in the department of Obstetrics and Gynecology Kurji Holy Family Hospital, Patna.

Method of collection: Data was collected from the record register of Obstetrics and Gynecology department for the study Inclusion Criteria: All the viable (>26 weeks) cases undergone the delivery at obstetrics and Gynecology department.

Exclusion Criteria: Delivery with incomplete records.

Statistical analysis of the data was done through SPSS version 21.0 for obtaining descriptive statistics as percentage.

Obsevation and Results

This study showed that total numbers of delivered were 1630 out of which caesarean section were 828, with caesarean rate of 49.2% of our study as compared to 74.34%. Of 828 C sections 48.3% were Primary C sections of which 37% cases were of elective C sections and 63% were of Emergency C sections. (Figure 1). Total CS rate was 49.2% as compared to 74.34% in a study done in Bangladesh (Sheikh Mujib Medical College Dhaka)

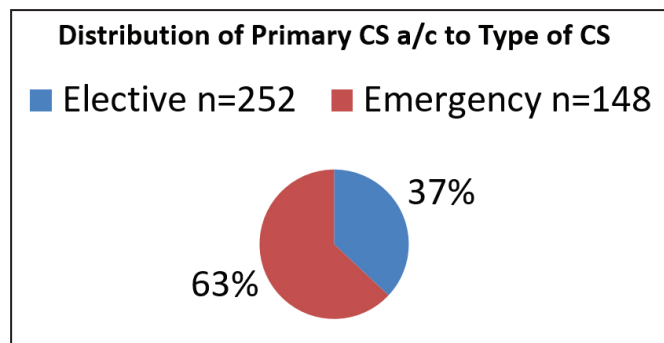


Figure 1: Distribution of Primary C section according to type of CS

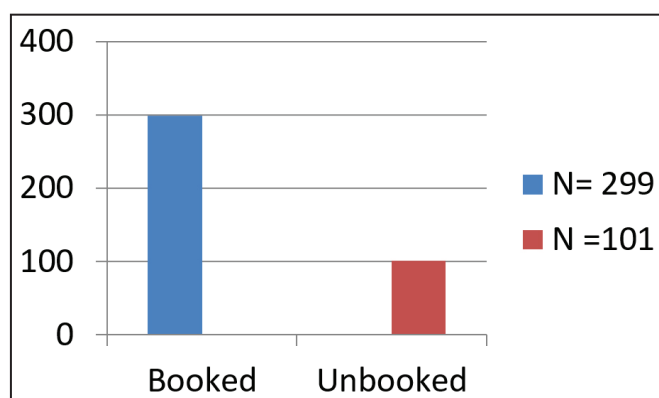


Figure 2: Booking status of study population who underwent primary C sections

Out of 400 primary C Sections 299 were booked patients and 101 were unbooked

Most of 1° CS (53%) were performed on primigravida (Figure 3). Anmile Boyle et al concluded that rate of primary CS in primigravida was 30.8% as compared to 11.5% in multigravida.

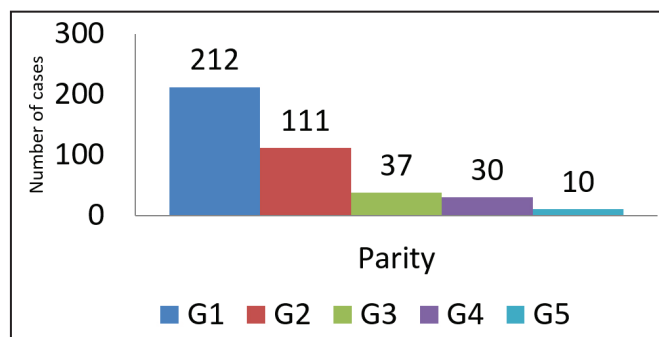


Figure 3: Distribution of Parity among cases

Most common indication was NRCTG followed by Patients Wish.

Failed IOL, NPOL, 2nd stage arrest were other common indications. (Table 1)

Table 1: Distribution of Primary C sections according to indications

Indication	Count	%AGE
NRCTG	76	19% (Max)
Patients wish	50	12.5%
Failed IOL	45	11.2%
NPOL	30	7.5%
2nd stage arrest	38	9.5%
APH	25	6.2%
Breech	20	5.1%
Fetal Distress (MSL)	25	6.2%
IFV	30	7.2%

Indication	Count	%AGE
Oligohydramnios	11	2.9%
PIH	20	
FGR	14	3.5%
Transverse Lie	8	2%
Good Size Baby	8	2%

Conclusion and Discussion

Our Study has shown majority of 1 CS are done in Primigravida and majority of indications are modifiable

Suggested way forward to cut down the rate are as follows:

- Revising CTG interpretation
- Minimising CS on demand and application of Painless Labour
- Skillfull and judicious use of instrumental Delivery in 2nd Stage arrest
- Performing ECV if possible
- Failed IOL can be minimised by proper patient selection
- NPOL can be tackled by redefining protracted Labour

Compliance with Ethical Standards Conflict of interest

The authors declare that they have no conflicts of interest.

REFERENCES

1. Samuel et al 2016, Taiwanese Journal of Obstetrics and Gynecology changing Indications and Rates of CS over a 16 year period
2. Hamilton BE, Hayert DL, Martin JA et al Annual Summary of vital statistics 010-2011 pediatrics 2013; 131-548-58
3. Gregory KD et al-CS versus Vaginal Delivery whose risks? Whose benefits? American Journal of Perinatolgy 2012;29:7-18
4. Liv S, Liston RM, Joseph KS, et al maternal morbidity and severe morbidity associated with low risk planned C Section versus planned Vaginal Delivery at term(MAJ 2007;176:455-60)
5. Clark SL, Belfort Ma, Dildy GA, Herbst MA, Meyers JA, Hankins GD, Maternal death in 21st century causes, preventions and relationship to cesarean delivery American Journal of Obstetrics and Gynecology 2008 ;199:36e1-e5
6. Barker EL, Lundsberg LS, Belanger K, Pettker CM, Funai EF, Illuzzi JL;Indications contributing to increasing CS rate 2011;118:29-38