ORIGINAL RESEARCH PAPER
Volume - 14 | Issue - 07 | July - 2025 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ANALYSIS OF INDICATIONS AND RATE OF CAESAREAN DELIVERIES AT RURAL TERTIARY HOSPITAL NCMCH

Health Science

Prerna PG Resident, Department of Obstetrics & Gynecology, NC MEDICAL COLLEGE ISRANA.

Veena Aseeja Professor, Department of Obstetrics & Gynecology, NC MEDICAL COLLEGE ISRANA.

KEYWORDS

INTRODUCTION

Caesarean section is now a days being performed with increasing frequency for various maternal and foetal indications. Though relatively safe, but it may add to maternal morbidity, prolonged hospitalization and future reproductive performance, particularly in developing countries where women even don't seek antenatal care. The present study is planned to analyse the indications and rate of caesarean section at tertiary rural hospital of Haryana.

Increasing rate of cesarean section worldwide is an alarming concern for public health and obstetrician due to increase in financial burden and risk to health of the mother in comparison to vaginal delivery.[1]

Caesarean section (CS) is a potentially lifesaving obstetric procedure. However, there are concerns about the rising CS rate in many countries of the world . The Ten-Group Robson classification system is presently recommended as an effective monitoring tool for comparing CS rates and identifying target groups for intervention aimed at reducing the rates.

AIMS AND OBJECTIVE

The aim of this study was to evaluate the caesarean section rate and the groups with the highest risk of CS at N C Medical College and Hospital (NCMCH), Israna Haryana.

Study Design: Retrospective study

METHODS

Study was conducted in the Department of Obstetrics and Gynaecology NCMCH Israna. Ethical clearance was taken from institutional review board of NCMCH. Study population were pregnant women who were admitted and delivered in the hospital. Record of all the patients delivered by caesarean section over a period of 12 months was reviewed and analyzed thereby calculating the rate and various indications of caesarean delivery in our hospital. Data collection was done by filling self-structured performa designed for the study. Data was collected throughout the study period to meet the sample size for the study. Convenience sampling was done and sample size was calculated.

Inclusion And Exclusion Criteria

Women delivered by Caesarean section at NCMCH Israna were included in study.

Statistical Analysis

Collected data were compiled and tabulated using Microsoft Excel and appropriate tables and figures were generated .

RESULTS

Among the 100 patients undergoing LSCS ,4 cases were less than 19 yrs of age ,46 cases were from age group 20-25 yrs , 34 were in in 26-30 yrs , 12 patients from age group 31-35yrs and 4 patients were above 35 yrs. (TABLE 1).

Out of total patients 34 patients were primigravida and 66 were multiparous (TABLE 2).

Out of total LSCS in the study 78 cases were operated in emergency and 22 cases were planned as elective LSCS. (TABLE 3)

Distribution According To Age (Table 1)

AGE GROUPS (years)	No of cases
Below 19	4
20-25	46
26-30	34
31-35	12
Above 35	4

Distribution According To Parity (Table 2)

PARITY	NO OF CASES
Primigravida	34
Multigravida	66

Table 3

Type of LSCS	No of cases
Emergency	78
Elective	22

Out of total 100 caesarean sections 76(76%) were primary sections and 24(24%) were repeat sections. Previous LSCS was the most common indication of primary section, observed in 24(24%) of the cases, followed by foetal distress in 21(21%) of the cases. Other indications were malpresentations 10(10%), non progress of labour 8(8%), post datism 8 (8%)IUGR with oligohydramnios 6(6%) ,obstructed labour 4(4%), PROM/PPROM 4 (4%) ante partum hemorrhage 3 (3%),twin pregnancy3(3%), contracted pelvis3(3%), PIH3(3%),CPD 3(3%).(Tab4)

Table 4 Description According To Indication Of LSCS

S. No	INDICATION	% Stage
1.	Fetal Distress	21%
2.	Non- progress of labor	8%
3.	Malpresentations	10%
4.	IUGR with oligohydramnios	6%
5.	Ante partum hemorrhage	3%
6.	Twin pregnancy	3%
7.	Prev LSCS	24%
8.	Obstructed labour	4%
9.	Post datism	8%
10.	PROM/PPROM	4%
11.	PIH	3%
12.	CPD	3%

DISCUSSION

WHO report in 1985 suggested that optimal population range for cesarean section rates is between 5% and 15%. (2,3)

The rising global rate in caesarean delivery has been a source of concern to obstetricians worldwide. In spite of remarkable improvement in the safety of anaesthesia and surgical techniques, caesarean section has higher risks of maternal death when compared with normal vaginal delivery.[4] Caesarean section is now a days being performed with increasing frequency for various maternal and fetal indications. Though relatively safe it may add on to maternal morbidity, prolonged hospitalization and may affect future reproductive performance. In recent years the rate has risen to a record level of 46% in China and to levels of 25% and above in many Asian countries, Latin America, and the USA.[5] WHO justify caesarean rate upto 15-20% only. Various studies have shown rising trend in caesarean rate upto 30-40%. In developing countries where women even don't seek antenatal care this increasing caesarean rate may have deleterious consequences in next pregnancy because of added risk of scar dehiscence or rupture uterus.

Ugwu E et al in a study at Nigeria reported caesarean section rate of

27.6% and Most cases (93.7%) were by emergency caesarean sections, with elective procedure accounting only for 6.3% of the caesarean sections.[4]

Our study also showed higher rate of Emergency caesarean section (78%) and elective 22%. Most of the elective sections were either repeat sections or due to malpresentations.

Anwar sultana and Aziz un Nisa reported a lower rate of caesarean section that is11.86%. Emergency CS was 82.38% and elective CS were 17.14%. Antepartum haemorrhage contributed to 23.92%, obstructed labour to 18.09%, failure of progress to 13.3%, previous CS to 11.9% and cephalopelvic disproportion to 11.9% of the indications. [6]

Barbe E L et al reported an increase in cesarean delivery rate from 26% to 36.5% between 2003 and 2009, 50% of the increase was attributable to an increase in primary cesarean delivery. The nonreassuring fetal status, arrest of dilation, multiple gestation, preeclampsia, suspected macrosomia, and maternal request increased over time, whereas arrest of descent, malpresentation, maternal-fetal indications, and other obstetric indications (eg, cord prolapse, placenta previa) did not increase. Among primary cesarean deliveries, subjective indications such as nonreassuring fetal status and arrest of dilation increased more as compared to objective indications.[7]

Unnikrishnan B et al 2009 reported caesarian section rate of 23.27%. major indications were Previous caesarean section, followed by Foetal Distress and Breech presentation.[8]

Most patients who underwent CS were multi-gravida in our study which is consistent with the studies done in Nigeria[9] and in contrast to study done by S. Subedi.[10]

To reverse the trend of the rising cesarean delivery rate, obstetricians must reduce the primary rate and avoid the performance of a uterine incision unless absolutely necessary for fetal or maternal indications. [11]

CONCLUSION

In our study the higher caesarean rate may be because the most of patients delivering at our institution are reffered and high risk cases. Also the repeat caesarean section constitueted the most common indication of caesarian section constituting 24% of the all caesarean sections. The next common indication was foetal distress, now a days becoming more common because of electronic foetal heart monitoring.

One should try to reduce the caesarean rate both primary as well as repeat caesarian section rate particularly in developing countries where women either don't have access or don't seek antenatal advice with the added risk of scarred uterus in next pregnancy.

REFERENCES

1. Tuner MJ. Delivery after one previous caesarean section. Am J Obstet Gynaecol. 1997;176:741-4.
2. Ronsmans C, De Brouwere V, Dubourg D, Dieltiens G. Measuring the need for life-saving obstetric surgery in developing countries. BJOG. 2004 Oct;111(10):1027-30.
3. Appropriate technology for birth. Lancet. 1985;2:436-7.
4. Ugwu E, Obioha K, Okezie OA, Ugwu AO. A five-year survey of caesarean delivery at a Nigerian tertiary hospital. Ann Med Health Sci Res 2011;1:77-83.
5. Park JC, Oh SY, Lee DH, Rhee JH, Kim JI. Analysis of Indication and Rate of Cesarean Deliveries at Dongsan Medical Center for Ten Years.Korean j perinatol. 2003 jun;14(2):183-189.
6. Anwar Sultana, Aziz Un Nisa. Indications of Cesarean Section in a District Head Quarter Hospital for women . J Ayub Med Coll Abottabad. 2003; 15(3):36-8.
7. Barber E. L , Lundsberg L. S , Belanger K ,Pettker C. M , Funai E F , Illuzzi J L. Indications Contributing to the Increasing Cesarean Delivery Rate Obstetrics & Gynecology. July 2011 ; Volume 118 - Issue 1 : pp 29-38.
8. Unnikrishnan B, Rakshith B P, Aishwarya A, Nithin Kumar, Rekha T, Prasanna PM. Indications for Caesarean Section in Coastal South India Australasian Medical Journal.2010; Vol 3: No 12
9. Subedi S. Rising rate of cesarean section- A year review. Journal Nobel Medical College. 2012;1(2):50-6.
10. Prasad A, Bhandari G, Saha R. Profile of Caesarean Section at Kathmandu Medical College. J Nepal Health Res Counc. 2017;15(2):110-3
11. Blanchette, H. The Rising Cesarean Delivery Rate in America: What Are the Consequences? Obstetrics & Gynecology: September 2011 - Volume 118 - Issue 3 - p 687–690.