THE RATE AND INDICATION OF CAESAREAN SECTION IN A TERTIARY CARE CENTRE

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Abstract

Method: The rate of caesarean section was only slightly higher than recommended by the WHO. Most of caesarean sections were emergency caesarean sections. Data on all live births were collected, including type of delivery, and indication was recorded if cesarean section was done. Total, primary, & repeat cesarean section rates were calculated for each year. The cesarean rate was calculated as the number of cesarean births divided by total live births. The rate for each indication was calculated annually as the number of cesarean births performed for each indication per 1,000 live births.

Result: These two groups constituted nearly 87.7% of total C-Sections. Only 3.4% of the cases belonged to the elderly age group of above 35 years. Maximum no. of caesarean sections was in multiparous females (54.3%). Out of 550 caesarean deliveries 76.7% were from urban area. Also, result showed that only 68.7% were booked for antenatal care.

Conclusion: The rate of cesarean section has increased with time with primary and repeat cesareans both showing an increase. In the primary CS rate, indications like labor arrest disorders & fetal distress show an increase more than the objective indications like malpresentation. In repeat CS, history of 02 or more previous sections & scar tenderness contributed more than the fetal distress.

Keywords: Indication, Caesarean

Introduction

Cesarean delivery is defined as the birth of the fetus through incision in the abdominal wall & the intact uterine wall.^[1] This definition does not include removal of fetus from the abdominal cavity in the case of abdominal pregnancy or in case of rupture uterus. CS is the 2nd commonest surgery done on the women in India after tubectomy & has great impact on maternal & neonatal health.^[2]

The increasing trend of CS rates may indicate a trend towards a costlier medical delivery systems and lowered threshold of abnormality detection among the health care providers. Studies have shown that there is no evidence of benefit for the health of mothers and babies in populations with values of CS rate above 15%.^[3] In fact, caesarean deliveries are associated with increased risk of maternal and perinatal morbidity as compared to vaginal deliveries even in low risk cases. This study is aimed to find the rate of caesarean deliveries and various indications of the procedure. This analysis may help to find out various ways to reduce the incidence of caesarean rate in the institute in future.^[4]

Material & Method

This was a cross-sectional descriptive study conducted from December 2018 to November 2019 in Gynaecology Unit - Shri Aurobindo Institute of Medical Sciences and

Post Graduate Institute, Indore. Patients who gave birth in the hospital during the study period were included in the study. Total of 1850 patients mode of delivery and basic demographics of the patients who underwent elective and emergency caesarean section were noted down. Clinical indications were recorded.

Total, primary & repeat cesarean section rates were calculated for each year. The cesarean rate was calculated as the number of cesarean births divided by total live births. The rate for each indication was calculated annually as the number of cesarean births performed for each indication per 1,000 live births. In our study, the category of fetal distress includes fetal distress during labor, non-reassuring & abnormal cardiotocogram when not in labor & abnormal umbilical artery doppler study. Obstetric indications are the conditions brought about by the current pregnancy like placenta previa, abruptio placentae, placenta accreta, & cord prolapse. For repeat sections, cesarean was performed without trial for vaginal delivery in patients with history of 2 or more previous cesarean sections, with cephalopelvic disproportion & for those who presented with scar tenderness.

Inclusion Criteria: Patient who are giving consent.

All ANC booked and unbooked patient coming to ANC OPD in SAIMS, Indore.

Exclusion Criteria: Patient who are not giving consent, Maternal Morbid Patient.

Results:

Table 1: The Caesarean Section Rates.

Mode of delivery	No. of cases	%
Vaginal delivery	1300	70.2
Abdominal delivery	550	29.8
Primary/Repeat		
Primary section	1640	88.6
Repeat sections	210	11.4

Table 2: Demographic analysis of patients who underwent C-Section.

Age group	No. of cases	%
19 year & below (Teens)	17	3.3
20-25 Years	359	65.2
26-30 Years	124	22.5
31-35 Years	31	5.6
Above 35 Years	19	3.4
Parity		
Primipara	243	44.1
Multipara (G2-G4)	298	54.3
Grand multipara (G5+)	09	1.6
Antenatal Status		
Booked	378	68.7
Unbooked	172	31.3
Residence		
Urban	422	76.7
Rural	128	23.3

Maximum no. of C-sections was in the age group of 20-25 year (65.2%) followed by 22.50% patients in the age group of 26-30 years.

These two groups constituted nearly 87.7% of total C-Sections. Only 3.4% of the cases belonged to the elderly age group of above 35 years. Maximum no. of caesarean sections was in multiparous females (54.3%). Out of 550 caesarean deliveries 76.7% were from urban area. Also, result showed that only 68.7% were booked for antenatal care.

Table 3: Indications contributing to the repeat caesarean rate.

Indications	No. of cases	%
Foetal distress	173	31.4
Scar tenderness	129	23.4
CPD	06	1.1
>_2 caesareans section	64	11.6
PIH	29	5.2
Refusal of vaginal birth	22	4.0
Breech	21	3.8
Oligohydroamnios/IUGR	18	3.6
Big baby (BW 3.5 kg and more)	17	3.0
Multifetal gestation	16	2.9
Malpresentation	14	2.7
APH	12	2.1
Prematurity	12	2.1
Medical disorders	11	2.0
BOH	06	1.1
Total	550	100

Discussion

Although the CS rate is said to vary from region to region and from one country to another, worldwide there has been an increasing trend of caesarean section deliveries. Manjulatha B^[5] et al found the CS rates to increase from 16.6% in 2002 to 22.4% in 2012.8 Present study also showed an increase in CS rates from 27.5% in 2010 to 39.6% in 2017. In the present study we found the CS rate of the institution to be 34.1%. Santhanalakshmi C^[6] et al found CS rate to be comparatively lower (12.5%) whereas other reports of CS rate as high as 51.1% and 67.7% respectively.10-12

The reasons for the increase in the caesarean rates are multifaceted. Detection of foetal distress especially with the use of continuous electronic foetal monitoring may be an important reason.^[7] Liberal use of caesarean in high risk cases like breech presentation, previous caesarean delivery, growth retarded foetus etc along with avoidance of difficult manipulative or instrumental vaginal deliveries may be some other reasons.^[8] Our institution which is a tertiary centre gets a large number of complicated pregnancies as well as referred patients in critical stage which makes it difficult to keep the CS rates low.

In the present study majority of the CS (75.6%) were performed as emergency cases which is comparable with findings of Gupta ED^[9] et al who found emergency cases to be 62.08%.13

Demographic data analysis of the present study showed that 73.24% cases belonged to 21-30 years which is similar to the findings of Jawa A.^[10] Majority of our cases (68.37%) belonged to rural areas whereas Gupta M et al found most of the cases belonging to urban areas. The location of the institution and the type of health care facility available in nearby areas play a vital role in this matter.

Conclusion

The rate of cesarean section has increased with time with primary and repeat cesareans both showing an increase. In the primary CS rate, indications like labor arrest disorders & fetal distress show an increase more than the objective indications like malpresentation. In repeat CS, history of 02 or more previous sections & scar tenderness contributed more than the fetal distress.

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