

**ASSESSMENT OF INDICATIONS FOR LOWER SEGMENT CAESAREAN SECTION IN
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Article Received on 02/01/2023

Article Revised on 22/01/2023

Article Accepted on 12/02/2023

ABSTRACT

Background: Caesarean section (CS) is one of the commonly performed surgical procedures in obstetrics worldwide. In modern obstetrics a trend towards an increase in the caesarean section rate has been seen. The present study was conducted to estimate proportion of various indications of lower segment caesarean section (LSCS) in a secondary care centre. **Methods:** This was a descriptive retrospective study conducted over a period of 1 year on all patients who underwent caesarean section at civil hospital, Palampur, Himachal Pradesh. Data of patients who delivered by C-Section in our hospital from 1st January, 2022 till 31st January, 2022 was recorded and a statistical analysis was done for various indications of the lower segment CS. **Results:** The total number of deliveries conducted over a period of 1 year were 2030 out of which 528 women were delivered by CS and 1502 had normal vaginal delivery. Caesarean section rate was 25.98%. Previous LSCS was the most common indication for LSCS (36.36%). Other common indications were foetal distress (23.86%) and abnormal presentations (20.83%) which includes breech, transverse lie, oblique lie and face presentation. **Conclusions:** The caesarean section rate is higher than the WHO recommended rate of 10-15%. Caesarean section can cause significant and sometimes permanent complications and should be undertaken when medically necessary. Since previous LSCS forms the most common indication for repeat CS more effort should be made to encourage patient for TOLAC (trial of labor after caesarean section) wherever possible.

KEYWORDS: Indication, Caesarean Section, Secondary Care.**INTRODUCTION**

Caesarean section is one of the commonly performed surgical procedures in obstetrics and is certainly one of the oldest operations in surgery. One of the most dramatic features of modern obstetrics is the increase in the caesarean section rate. Proportion of CS to the total births is considered as one of the important indicator of emergency obstetric care.^[1] The rate of CS is different among different parts of the world because of the difference in sociodemographic profiles of the patient and healthcare accessibility in different countries.^[2] The increasing trend in global rates of CS in the last few years have become one of the most debated topics in maternity care.^[3] The reasons for the increase are multifaceted. Previous CS, foetal distress, especially its detection by continuous electronic foetal monitoring, more liberal use of caesarean section for breech presentation and improved safety of caesarean section are commonly cited causes.^[4] The WHO's recommendation is that primary caesarean sections to be kept at less than 15% and every effort should be made to provide caesarean sections to women in need, rather than striving to achieve a specific rate.^[5]

AIMS AND OBJECTIVES

The aim of this study was to estimate proportion of various indications for lower segment caesarean section (LSCS) in a secondary care centre.

MATERIAL AND METHODS

This was a descriptive retrospective analysis of all the patients who underwent caesarean section whether emergency or elective CS at civil hospital, Palampur, Himachal Pradesh for a period of 1 year from January 1st 2022, to December 31st 2022. The data was collected and the results were summarised in numbers and percentages.

RESULTS

During the study period a total of 2030 deliveries were conducted out of which 528 (26%) patients underwent CS. Amongst these 322 (60.98%) were primiparous and 206 (39.02%) were multiparous (Table 1). 254 (48.11%) cases were from age group 20–25 years and 122 (23.11%) had age between 26–30 years, 58 (10.98%) were from age group below 19 years, and 94 (17.80%) patients were above 31 years age (Tables 2).

Table 1: distribution according to parity.

Parity	Number of cases (%)
Primipara	322 (60.98%)
Multipara	206 (39.02%)

Table 2: distribution according to age.

Age group	Number of cases (%)
<19 years	58 (10.98%)
20-25 years	254 (48.11%)
26-30 years	122 (23.11%)
>30 years	94 (17.80%)

Table 3: Description according to indication of caesarean section.

Indication of CS	Number of cases (%)
Previous CS	192 (36.36%)
Foetal distress	126 (23.86%)
Malpresentations	120 (20.83%)
MSL with foetal distress	32 (6.06%)
non-progress of labor	22 (4.17%)
Cephalo-pelvic disproportion (CPD)	15 (2.84%)
failure of induction	12 (2.27%)
pregnancy-induced hypertension(PIH)	8 (1.52%)
multifetal pregnancy	6 (1.14%)
Ante partum haemorrhage	3 (0.5%)
uncontrolled diabetes mellitus	2 (0.38%)

Previous LSCS was the most common indication for repeat LSCS accounting for 36.36% of the cases, followed by foetal distress 126 (23.86%), malpresentations 120 (20.83%) (breech presentation being the most common (98), transverse (10), oblique lie (9) and face presentation (3)), meconium stained liquor with foetal distress 32 (6.06%), non-progress of labor 22 (4.17%), cephalopelvic disproportion 15 (2.84%), failure of induction 12 (2.27%), pregnancy-induced hypertension 8 (1.52%), multifetal pregnancy 6 (1.14%), Ante partum haemorrhage 3 (0.5%) and uncontrolled diabetes mellitus 2 (0.38%) (Table 3).

DISCUSSION

CS is a widely performed abdominal surgery across the world which is life saving for mothers and foetus in case of difficult vaginal delivery or when vaginal delivery not possible due to any fetomaternal complication.

Sakael *et al.* conducted a hospital-based study from 2001 to 2005 which showed that proportion of CS cases was 32.6%.^[6] Similar study conducted by Das *et al.* show 35.45% cesarean rate.^[7] In our study the caesarean section rate was 26%. In the present study previous LSCS was an indication in 36.36% of cases and CPD in 2.84% cases. A study conducted by Katke Rajshree D *et al.* found that proportion of previous LSCS was 45.8% and CPD in 4.64% cases.^[8] In the present study, foetal distress was the indication in 23.86% cases. A Study by Unnikrishnan *et al.* found foetal distress in 19.6% cases,^[9] Singh *et al.* found foetal distress in 19% cases.^[10] Their results were comparable to the present study. Malpresentation was indication in 20.83% cases in the present study. A study by Patnaik *et al.* mentioned malpresentation as indication in (23.1%),^[11] Chavda *et al.* (18.6%).^[12] Their results were comparable to the present study. Pregnancy-induced hypertension was the indication in 1.52% cases in the present study. Nikhil *et al.* (1.94%),^[13] Singh *et al.* (4.80%),^[10] and Das *et al.* (4.87%),^[7] mentioned comparable results.

CONCLUSION

In our study the caesarean section rate was 26% which is comparatively lower than the other studies because this study was conducted in secondary care centre wherein many patients with foetal or maternal complications are

referred to tertiary care institutes. If the percentage of primiparous women undergoing caesarean section decreases the percentage of females undergoing repeat CS would also decrease. Hence, caesarean section should ideally only be undertaken when medically necessary. Patients with malpresentations like breech or transverse lie can be given a trial of external cephalic version (ECV) after meeting all the prerequisites to reduce the rate of CS. As previous CS is the most common indication for LSCS such patients should be encouraged and counselled starting from antenatal period for TOLAC.

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