



Epidemiology profile of cesarean section in a rural teaching hospital Himachali Pradesh

¹Dr Priyanka Sharma, Junior Resident, Department of Obstetrics and Gynaecology, Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh

²Dr Apra Attri, Junior Resident, Department of Obstetrics and Gynaecology, Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh

Corresponding Author: Dr Apra Attri, Junior Resident, Department of Obstetrics and Gynaecology, Dr. Rajendra Prasad Government Medical College, Kangra at Tanda, Himachal Pradesh

Citation this Article: Dr Priyanka Sharma, Dr Apra Attri, “Epidemiology profile of cesarean section in a rural teaching hospital Himachali Pradesh”, IJMSIR- July -2021, Vol – 6, Issue - 4, P. No. 217 – 219.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Background: In this study we were analyzed the epidemiological profile of cesarean section at rural teaching hospital Himachal Pradesh

Methods: Prospective observational study was conducted at Department of Obstetrics and Gynaecology at Dr Rajendra Prasad Government Medical College Kangra at Tanda (HP)

Results: The mean age of the patients was 26.47 years. Majority of the study subjects (26.3%) were aged ≥ 30 years followed by 26% patients that were aged 24-26 years. Only 7.6% patients were aged between 18 and 20 years. 50.6% of the patients were nulliparous. Majority of study subject 83.8% patients belonged to the rural areas. 70% of the patients had low socio-economic status.

Conclusion: We concluded that the majority of study subject belonged to the rural areas and had low socio-economic status.

Keywords: CS, Age, Parity

Introduction

Since 1985, the international healthcare community has considered the ideal rate for caesarean sections to be between 10% and 15%. Since then, caesarean sections have become increasingly common in both developed and developing countries. When medically justified, a caesarean section can effectively prevent maternal and perinatal mortality and morbidity. However, there is no evidence showing the benefits of caesarean delivery for women or infants who do not require the procedure. As with any surgery, caesarean sections are associated with short and long term risk which can extend many years beyond the current delivery and affect the health of the woman, her child, and future pregnancies. These risks are higher in women with limited access to comprehensive obstetric care.¹

In recent years, governments and clinicians have expressed concern about the rise in the numbers of caesarean section births and the potential negative consequences for maternal and infant health. In addition, the international community has increasingly

referenced the need to revisit the 1985 recommended rate.²

In this study we were analyzed the epidemiological profile of cesarean section at rural teaching hospital Himachal Pradesh.

Material and methods

Study Period: March 2018 to February 2019

Place of Study

Department of Obstetrics and Gynaecology at Dr Rajendra Prasad Government Medical College Kangra at Tanda (HP)

Type of Study: Prospective observational study

Inclusion Criteria

All pregnant women who delivered by CS in this institution during the specified time period.

Exclusion Criteria

- All pregnant women who delivered before 28 weeks period of gestation (POG) were excluded from the study.
- Refusal to participate in the study

In all pregnancies, gestational age was confirmed by accurate history, pregnancy test report, stethoscope detected fetal heart sound record/Doppler detected first fetal heart sound record, date of last menstrual period (LMP) and available ultrasound in the first or second trimester.

The data of all the women undergoing CS were obtained from the hospital records. Subsequently, data were analyzed to assess indication of CS in each group (as per RTGCS).

Statistical analysis

The data were recorded in a proforma and entered in to excel sheet. Data were presented and frequency, percentage, mean, and/or standard deviation.

Observations

The present study was aimed to apply Robson’s Ten Group Classification System (RTGCS) in women who delivered by CS in our hospital at DRPGMC Kangra at Tanda H.P, and identify specific group of women with higher CS rate. A total of 3009 women delivered by CS over the period of one year from 1st Mar 2018 to 28th Feb 2019.

In our study, mean age of the patients was 26.47 years. Majority of the study subjects (27.02%) aged ≥30 years followed by 26% patients aged 24-26 years. Only 7.6% patients aged between 18 and 20 years.

Table 1: Age distribution of the study subjects (n=3009)

Age (Years)	n	%
18-20	229	7.61
21-23	549	18.25
24-26	782	25.99
27-29	636	21.14
≥30	813	27.02

In the present study, 50.6% of the patients were nulliparous while 49.4% of the women were multiparous

Table 2: Parity distribution of study subjects(n=3009)

Parity	n	%
Nulliparous	1524	50.65
Multiparous	1485	49.35

In the present study, majority of the patients (84%; n=2524) belonged to rural areas while remaining 16% (n=485) patients belonged to urban areas

Table 3: Socio-demographic profile distribution of study subjects(n=3009)

Socio-demographic profile	n	%
Rural	2524	83.88
Urban	485	16.12

In the present study, 70% (n=2119) of the study subjects' socioeconomic status was low while 26% (n=793) patients were in middle socioeconomic class. Only 3% (n=97) of the patients belonged to upper socioeconomic class.

Table 4: Socioeconomic status distribution of study subjects

Socioeconomic status	n	%
Low	2119	70.42
Middle	793	26.35
Upper	97	3.22

Discussion

In rural areas of a developing country, lack of trained healthcare providers, transportation system and proper equipment's are challenges for neonatal, infant and maternal mortality. The developing countries lack resources which makes the caesarean section procedure more complex and complicated. The limited number of health facilities and skilled care providers, inappropriate equipment, untrained staff, socio-cultural and economic barriers and inadequate transportation system in the low-income countries like Nepal is presenting complex situation and facing challenges to improve cesarean delivery.³ Scientific progress, social, cultural and legal issues have led to a change in attitudes towards CS among patients and doctors. There is a need for strict implementations of the global indications and guidelines for CS, which will help to control unwanted and unnecessary surgical procedure of caesarean section⁴

In our study, mean age of the patients was 26.47 years. Our findings are similar with Tura et al⁵ who classified women undergoing CS according RTGCS. They reported the mean age of patients was 26.3 years. In our study, 51% were nulliparous.

In the present study, 84% belonged to rural region.70% of the patients had low socioeconomic status.70% of the patients had gestational age more than 37 weeks.Our findings are in similar to study by Ming et al who reported that 43% of such women are aged between 25 and 29 years, 65% of them are nulliparous.⁶

Conclusion

We concluded that the majority of study subject belonged to the rural areas and had low socio-economic status.

References

1. Charoenboon C, Srisupundit K, Tongsong T. Rise in cesarean section rate over a 20-year period in a public sector hospital in northern Thailand. Archives of gynecology and obstetrics. 2013 Jan 1;287(1):47-52.
2. Sewell JE. Cesarean section—a brief history. A brochure to accompany an exhibition on the history of cesarean section at the National Library of Medicine. 1993 Apr 30;30.
3. Kwawukume EY. Caesarean section in developing countries. Best Practice & Research Clinical Obstetrics & Gynaecology. 2001 Feb 1;15(1):165-78.
4. Dhakal S, Van Teijlingen E, Raja EA, Dhakal KB. Skilled care at birth among rural women in Nepal: practice and challenges. Journal of health, population, and nutrition. 2011 Aug;29(4):371
5. Tura AK, Pijpers O, de Man M, Cleveringa M, Koopmans I, Gure T, et al. Analysis of caesarean sections using Robson 10-group classification system in a university hospital in eastern Ethiopia: a cross-sectional study. BMJ Open 2018;8:e020520
6. Ming Y, Li M, Dai F, Huang R, Zhang J, Zhang L, et al. Dissecting the current caesarean section rate in Shanghai, China. Sci Rep. 2019;9:2080.