

### **Prevalence of cesarean section in a rural teaching hospital Himachal Pradesh**

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#### **Abstract**

**Background:** In this study we were analyzed the prevalence 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:** During the period of one year, a total of 9788 women delivered in our Department at Dr. RPGMC Kangra at Tanda. Out of these 9788 women, 3009 women delivered by caesarean section. Overall CS rate of 30.74% was observed

**Conclusion:** We concluded that the one third of total delivery was caesarean section

**Keywords:** CS, NVD, Women.

#### **Introduction**

The Cesarean Section (CS) is one of the most common operative procedures in obstetric practice for reduction of maternal and fetal morbidities and mortalities.<sup>1</sup> The initial purpose of the cesarean section was to retrieve the infant from a dead or dying mother to save the

baby’s life. The indications for the caesarean section have changed dramatically from ancient to modern times and as the caesarean section has become comparatively became safer, obstetrician debate against delaying surgery to reduce maternal and perinatal infant mortality rates.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4,5</sup> 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 section<sup>6</sup>

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

During the period of one year, a total of 9788 women delivered in our Department at Dr. RPGMC Kangra at Tanda. Out of these 9788 women, 3009 women delivered by caesarean section. Overall CS rate of 30.74% was observed.

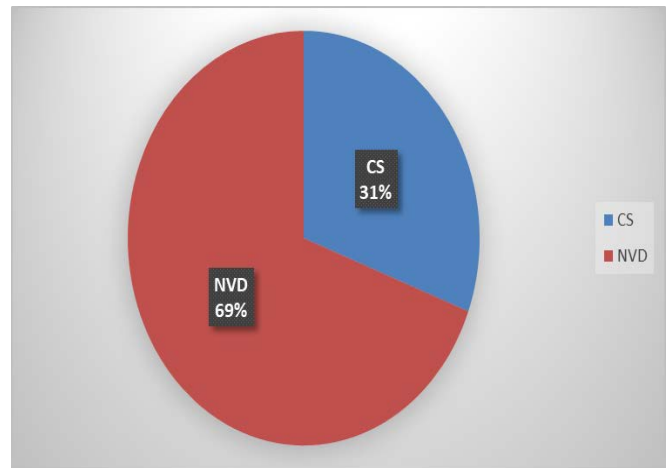


Figure 1: CS rate

#### Discussion

The purpose of the current study was to demonstrate the usefulness of RTGCS as a standard tool for audit of deliveries by cesarean section. In the present study, the overall CS rate is 30.47% which was greater than 15% (WHO)<sup>6</sup> and 27.3% (Asian Country)<sup>7</sup> and but similar to 31.2% (International CS Rate).<sup>8</sup> High rate of the CS can be due to higher referral rate of high-risk pregnancies to our institution being a tertiary care centre with referral of complicated cases from periphery. Robson's 10-Group classification enabled the identification of the specific group of women to be targeted to reduce the CS rate.

There has been a global increase in the rate of CS but the determinants of this increase are varied for different countries, institutions and at different times; Asian countries, it was reported as 47.6% in China, 40% in Iran, 19.3% in India and 18.6% in Japan.<sup>9</sup>

CS rate were higher which could be explained by shortcomings at peripheral hospitals such as last-minute referrals, unavailability of CS and transfusion facilities, and lack of NICU facilities at the booking center. The CS rate reported in Australia<sup>10</sup> ranges from 28% in Tasmania to 33.1% in Queensland.<sup>11</sup>

## **Conclusion**

We concluded that the one third of total delivery was caesarean section.

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