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Original Research Article

Indications of Caesarean Section at Tertiary Health Care Facility in Himachal Pradesh

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Abstract: Caesarean deliveries are increasing. Caesarean sections have significant financial repercussions in addition to increasing maternal mortality and morbidity. The fetus's presumed benefit is typically used to justify caesarean sections. These advantages are frequently unmeasured and supported by weak data. Improved anaesthetic and neonatal techniques may help to explain some of the shifting trends in the rates of caesarean sections for different indications. The shifting rate and indications for caesarean sections may have appeared more acceptable due to cultural shifts, societal expectations, and obstetricians' worry about legal action. There is not much supporting research in this area. Hence this study was designed to understand medical reasons for caesarean section in tertiary government health care facility. Thus, the main objective of this study was (1) to study the prevalence of C-section in cases presented at Regional Hospital, Kullu and (2) to study various factor responsible for caesarean section.

Keywords: caesarean section, maternal mortality and morbidity, cultural shifts.

INTRODUCTION

The Caesarean section is a major obstetric operation that was first used in the late 1800s to save women's and newborn's lives from life-threatening pregnancy and childbirth difficulties [1]. The rate of caesarean sections in the general population is used as a process indicator in maternal health to track progress. To have the greatest impact, the World Health Organization (WHO) recommends that the population-based Caesarean section rate be between 5 and 15% [2]. Nonetheless, worldwide population based all cause caesarean section rates have risen dramatically in the last few decades. According to a data from both developed and developing countries, the average rate of Caesarean section in 2013 was 27 percent [3, 4]. Unnecessary Caesarean sections can increase maternal, neonatal, and baby morbidity and mortality rates. India is continuously making progress toward maternal health and MMR in India has decreased from 370 per 100,000 live births in 2000 to 145 per 100,000 live births in 2017. But caesarean section deliveries are increasing at a very alarming rate [5, 6].

According to the 2019–21 NFHS, caesarean sections were used in 22% of live births in the five years prior to the survey. Nine percent of C-sections were decided upon following the onset of labour pains, versus 12 percent prior to the onset of labour pains. Wealth quintiles and C-section deliveries have a significant positive association [7]. Mothers in the highest-income quintile (39%) of households are significantly more likely to give birth through c-section than mothers in the lowest-income quintile (7%). It is notable that over 30% of births in private medical facilities in the majority of Indian areas were delivered via C-section [8]. In Himachal Pradesh, at least 88 per cent deliveries were institutionalised, as against 76.4 per cent in 2015-16. Private healthcare facilities saw a rise in C-section births from 44 .4 per cent in 2015-16 to 51.4 per cent births via C-section in 2019-20. The rise in institutional births, along with other contributing factors like unregulated health facilities, mostly private institutions, and an increasing trend of women choosing it, is one of the most important causes of this rising C-section rate [9, 10]. These elements are viewed as non-clinical elements that require further investigation to comprehend the rising rates of caesarean deliveries. Like in most of the states in India, the caesarean section deliveries have become a public health concern [11]. Not research have been conducted to determine why C-section deliveries have elevated to the level of a public health problem in the modern era and what may be done to limit the number of needless C-sections. This study tries to understand medical reasons for caesarean section in tertiary government health care facility. Thus,

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the main objective of this study was (1) to study the prevalence of C-section in cases presented at Regional Hospital, Kullu and (2) to study various factor responsible for caesarean section.

MATERIAL AND METHOD

The retrospective descriptive review of all institutional deliveries conducted at RH, Kullu was conducted from January 2021 to December 2021. The record was obtained from case records and compiled in the excel sheets for statistical analysis in Graphpad Prism software in term of frequencies and percentage.

RESULTS

A retrospective review of deliveries conducted at regional hospital Kullu was done for the period of 1 year from January 2021 to December 2021. The data was collected from case records and compiled to report prevalence of various medical reasons were recorded. Out of 877 deliveries conducted at RH Kullu caesarean section was done in 277 (31.7%) cases as shown in table 1 and figure 1. Highest and lowest percentage of C-section was performed in the month of December (39.6%) and May (26.6%) respectively.

Table 1: Month wise caesarean sections and deliveries conducted at RH Kullu

Month	Caesarean section	Total Deliveries	Percentage [%]
January, 2021	23	70	32.9
February, 2021	13	45	28.9
March, 2021	26	80	32.5
April, 2021	20	68	29.4
May, 2021	21	79	26.6
June, 2021	15	46	32.6
July, 2021	22	78	28.2
August, 2021	32	86	37.2
September, 2021	19	70	27.1
October, 2021	19	67	28.4
November, 2021	29	89	32.6
December, 2021	38	96	39.6
Total	**277**	**874**	**31.7**

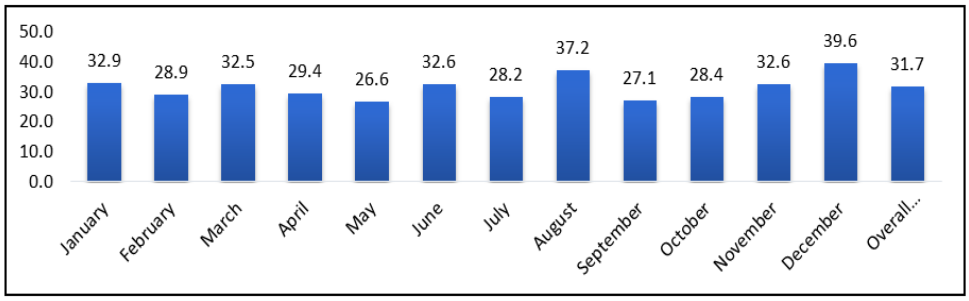

Figure 1: Month wise percent caesarean sections performed at RH Kullu

Various medical indications for caesarean sections conducted at RH Kullu are shown in table 2. Most common indication for was previous lower section caesarean surgery [117/277] followed by meconium-stained liquor [44/277]. Other Medical indications for caesarean section were failed induction (38/277), Cephalic disproportion (33/277), malpresentation (29/277), Non progression of labour (13/277), placenta praevia (2/277) and cord prolapse (1/277).

Table 2: Medical indications for conducting caesarean section at RH Kullu

Indication for C section	No. of cases	Percentage
Meconium-Stained Liquor	44	15.9
Malpresentation	29	10.5
Previous Lower section caesarean surgery	117	42.2
Failed Induction	38	13.7
Non-progression of labour	13	4.7
Cephalopelvic Disproportion	33	11.9
Cord Prolapse	1	0.4
Placenta Praevia	2	0.7
Total	277	100.0

DISCUSSION

Growing rate of CS is a matter of concern everywhere in the world. The present study is a retrospective hospital record-based study, carried out in the RH Kullu. In present study the most common indication for caesarean section was repeat caesarean section (42.2%) followed by Meconium-Stained Liquor (15.9%). Similar results were obtained in study conducted by Pandya *et al*., (46.2%) and (13.4%) respectively (5). Previous caesarean section was the commonest indication in a study conducted in developed countries as well. Practice of trial for vaginal birth after cesarean (VBAC) is less in our institute due to doubtful scar strength, details regarding previous CS being not available. No trial was given to patients with previous 2 or more sections and also in those women who refused for vaginal delivery. These findings were comparable to to studies done by Jawa A *et al*., and Sarma P *et al*., [7, 8].

CONCLUSION

Previous CS, meconium-stained liquor, failed induction, Cephalic disproportion, malpresentation, non progression of labour, placenta praevia and cord prolapse, etc. were the key indicators of CS. There were few maternal side effects from CS. The rate of primary caesarean sections can be kept to the barest minimum by reducing the number of them, achieving vaginal birth after caesarean, individualising the indication, carefully evaluating, and adhering to defined norms.

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