

Review Article

Caesarean section: an epidemic

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ABSTRACT

Worldwide steady increase in caesarean section (CS) rate during the last decades has been the cause of alarm and needs an in depth study. Caesarean section is major surgery and increases the likelihood of many short and longer-term adverse effects in mothers and babies. The caesarean epidemic is a reason for immediate concern and deserves serious international attention. There are to be needs to make policy on caesarean section for reversing this trend that can be truly called as "Caesarean section: an epidemic".

Keywords: Caesarean section, Epidemic

INTRODUCTION

Caesarean section (CS) was introduced in clinical practice as a life saving procedure both for the mother and the baby.¹ Proportion of CS to the total births is considered as one of the important indicators of emergency obstetric care (World Health Organization, 2009). The World Health Organization (1985) stated: "There is no justification for any region to have CS rates higher than 10-15%".² The use of CS has increased dramatically worldwide in the last decades particularly in middle and high-income countries, despite the lack of evidence supporting substantial maternal and perinatal benefits with CS rates higher than a certain threshold, and some studies showing a link between increasing CS rates and poorer outcomes.^{3,4} The procedure is not benign and needs to be performed only when circumstances distinctly require it. The CS epidemic is a reason for immediate concern and deserves serious international attention.

INCIDENCE (CURRENT RATE OF C-SECTION WORLDWIDE)

The consensus recommendation for optimal CS rate of 10-15% was made by WHO in 1985.² According to the most recent estimates, the average global rate of CS is 18.6%, ranging from 6.0% to 27.2% in the least and more developed regions, respectively.⁵

In India, the rate of caesarean section delivery has increased (Figure 1) from 2.5% to 17.2% between 1992-93 (NFHS-1) and 2015-16 (NFHS-4) which is lower compared to developed nations, but being the second most populous country in the world, it affects a huge number of people and the increasing rate is alarming.^{6,7}

WHY THIS UPWARD TREND?

The reasons for the dramatic increase in CS rates through worldwide are multifactorial and complex. Changes in maternal characteristics and professional practice styles, increasing malpractice pressure, as well as economic,

organizational, social and cultural factors have all been implicated in this trend.⁸⁻¹¹ Following could be considered the reasons for this upward trend:

Medical condition

Medical indications of caesarean section have been broadened and includes situations such as dystocia, cephalo-pelvic disproportion, placenta previa, breech presentation, foetal distress, multiple births, previous caesarean section, pre-eclampsia/eclampsia, active genital herpes of mother etc.

Current life style

Decreasing physical activity, fear of pain, mass advertisement and easy availability of caesarean section, especially in urban areas have compelled women for delivery by caesarean section.

A private job

Caesarean delivery involves an extended stay in the hospital or nursing homes compared to vaginal delivery and this, results in extra costs for the stay and other related services. Since the private health institutions are inclined to earn profit, it is often possible that CS is performed unnecessarily. In India, many doctors have their own medical institutions. They even admit the patient under them and earn enormous profit from CS. It is still to be established with relevant data. But the increasing rates of caesarean section in the private sectors indicate this nexus.^{12,13} The fees for admission in the private medical college have increased at an alarming rate. The students paying such large amount of money to get doctor degree, would try to recover the amount by any means. It would not be surprising if they perform unnecessary caesareans in future. So it may further accelerate the rising trend of CS in future.

Patient wishes

The demand for CS is increasing, especially from highly educated rich urban women to avoid labour pain. Many a times a woman or her family wants a specific obstetrician to conduct the delivery because of the doctor's reputation, for which, elective caesarean is preferred by a doctor with enormously busy schedule. In India, day and time of birth have astrological significance. So Many couples want birth of their baby on auspicious date and time through CS.¹³

Patients load with relative lack of infrastructure

In India the population pressure is so high and the proper vaginal delivery related infrastructure (e.g., bed, electronic foetal monitoring system, skilled neonatal intensive care, blood transfusion facility etc.) is lacking specially in public health institutions like CHC and PHC. So the situation may force people to go to private

hospitals, who are more inclined toward Caesarean deliveries.

Teaching of postgraduate student

In teaching hospitals the CS rate is generally high. To learn the caesarean technique, students particularly those doing post graduation in gynaecology and obstetrics may perform caesarean when it may not be necessary. Study by Pai supports this factor.¹⁴

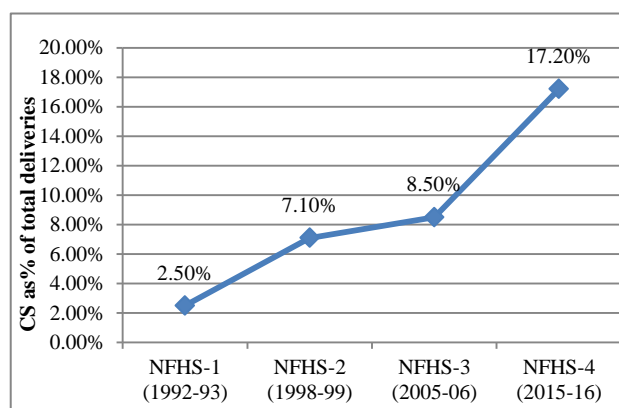


Figure 1: Time trend of cesarean section in India.

HOW TO CURB THE CAESAREAN EPIDEMIC?

From a public-health perspective, WHO endorsed the principle that a population-based caesarean section rate exceeding 15% of all live-births is not justified in any region of the world.² Beyond this 'threshold', the benefits of performing caesarean section are no longer outweighing short and long-term morbidity and mortality associated with the actual procedure, and India has crossed this threshold and seems to go much further if necessary measures are not implemented soon. There are many strategies that can be included in the health policy for lowering caesarean section rates.

Measure that could be implemented at hospital level including private hospital includes Development and strict implementation of specific clinical standards for obstetric care for all hospitals. Second opinions should be necessitated for all caesareans except emergency caesareans and periodic audit should be done of all caesarean operations. Mandatory, hospital-wide information forms should be developed, which explain to women with previous caesarean sections that vaginal delivery is the safest mode for most women. labor room staff should be trained and sensitized for empathic and respectful behavior towards women in labor, especially in public health institutes. peripheral health workers like ASHA and midwives should be trained and incorporated for pursuing couples for normal vaginal delivery and birth preparedness. A comprehensive maternal and child database should be developed to track maternal care (antenatal, natal and post natal) and clinical outcomes.

Women themselves should take measures to avoid unnecessary caesarean because they themselves will have to undergo and live with the effects of it. These measures include Pre-selection of her doctor and hospital based on their caesarean track record. They should discuss concerns about caesarean section and other forms of medical intervention during labor and delivery with their doctor and should consider choosing a midwife for prenatal care and as the birth attendant.

By strict adherence to above measures, hospitals and women themselves can be instrumental in reversing the present trend that can be truly called as "The caesarean section epidemic."

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