

The Over Roofing Rates of Caesarean Section

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The rates of caesarean section (CS) have increased drastically over the past decade which has been reported in United States as 32% [1], Canada 22.5% [2] and United Kingdom 23.8% [3]. A study by the Indian Council of Medical Research in 33 tertiary care institutions noted that average CS rates increased from 21.8% in 1993–1994 to 25.4% in 1998–1999 [4]. The World Health Organisation (WHO) recommends that a CS rate of more than 15% is not justified. According to WHO 2005 global study report, a higher rates of CS was associated with greater risk of maternal and perinatal mortality and morbidity compared to vaginal delivery [5].

An uncontrolled rise in the CS rates has been based on the improvement of skill and safety of the operation, broadened and not well defined indications, legal, financial and convenience incentives, some demographic, anthropological and social changes during recent decades. Widespread perception amongst population is that the CS is of little or no risk to healthy women resulted into an increased elective primary CS up to 42.4% [4] leading to a proportionate increase in repeat CS as well.

Vaginal birth after CS (VBAC) was common in mid 1990s. But today, one in 10 women opts for VBAC. Success rate of VBAC is reported to be 75% with less than 1% of uterine rupture. Many hospitals stopped performing

VBAC because of non compliance with the guidelines and uterine rupture leading to fetal death and brain damage resulting into suing of hospital and obstetrician with massive settlements. Hence, lack of access to VBAC is one of the several factors driving the steady increase in CS rates.

Since 1990 there has been an increase in elderly pregnant women with or without medical disorders and doubling of obese pregnant women with large babies. Their chances of undergoing CS are high. Currently, there is increase in number of women undergoing fertility care, especially IVF who are more likely to have multiple pregnancies with increased risk of intrauterine fetal growth retardation, preterm labor, other complications and as premium babies have also caused increase in CS rates.

In 2000, after a large-scale international study reported CS is safer for the breech babies, since then CS became the near-universal choice for the same. Six years after publication of these results and recommendations, the data of study was analyzed again and published that because of mistakes in the study design the results were unreliable and the study group should withdraw the recommendations [6]. Moreover, studies of outcome after 2 years did not show difference between vaginal and abdominal deliveries of breech babies. In spite of evidence based data, fewer and fewer obstetricians are delivering breech vaginally.

There is concern that operative vaginal delivery can cause harm to the mother and the baby. But the American College of Obstetricians & Gynaecologists (ACOG) [7] recommends that forceps delivery remains an acceptable and safe option for delivery. In spite of this, recent data

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from the United States reported a total forceps rate of only 1.6% and about one-third (0.6%) of which were unsuccessful. Therefore, deteriorating skill and inexperience in forceps deliver has increased the rates of CS. Hence, use of forceps and training of junior obstetricians in operative obstetrics is the need of the hour.

Increase in rate of induction of labor has been observed from 9.5% in 1990 compared to 20% in 2003 due to more active surveillance of fetus with ultrasound, CTG and color doppler during the last few weeks of pregnancy which has also resulted into increase in CS rates. In most of the hospitals and institutions, fetal monitoring has become an integral part of labor and delivery care. Changes in the fetal heart rate indicate fetal distress which prompts obstetrician to perform rapid delivery by CS. However, the fact that fetal monitoring, per se, has not changed perinatal mortality rates and often the babies do appear compromised during monitoring are born without underlying distress. Universal use of fetal scalp blood sampling is unavailable thereby leading to obstetrician's distress. However, no obstetrician would like to take the risk of not performing CS. In spite of the increase in fetal indications for CS perinatal mortality has remained high and there is increased incidence of premature delivery, respiratory distress syndromes and NICU admission in CS group [4].

In 2005, Mossialos et al. concluded that the results of their study lend support to the hypothesis that obstetricians are motivated to perform CS for financial and convenience incentives [8]. They observed higher Caesarean Section rates in private hospital compared to public hospital and in Greek women 52.5% compared to 26% among the ethnic group which was the least well of groups and had CS rates closer to the internationally accepted standard. As per obstetrician convenience, the rates of CS significantly reduced on weekends and non working hours.

Caesarean delivery on maternal request (CDMR), non medical and non obstetrical indication, has been controversial. Factors responsible for CDMR are convenience, fear of labor pain or too push to push, intrauterine fetal death, brain injuries, fear that the consequences of labor and delivery may compromise the health and quality of life of mother, fear of pelvic organ prolapse, urinary and rectal incontinence and sexual dysfunction following vaginal delivery. Unfortunately maternal complications following CS like haemorrhage, infection, pulmonary embolism, increase in caesarean hysterectomy, maternal mortality by several folds and several complications in future pregnancy do not get the due importance from health care providers therefore; CDMR has increased the CS rates tremendously. The ACOG and National Institute of Health have stated

that it is ethically permissible for obstetricians to perform CS on maternal request. However, the International Federation of Gynaecologists and obstetricians feel that hard evidence of benefit does not exist performing CS for non medical reasons and is not ethically justified. The choice for CDMR has to be made by the pregnant woman after thorough counseling and she should be informed about the possible complications and consequences to future pregnancy.

All these factors have resulted into the over roofing rates of CS from 4.5% in 1965 to recently 32% [1]. It is well understood that optimum maternal and perinatal outcome depends on good obstetric practice rather than CS. Robson [9] showed low perinatal mortality rates comparing with best of centres in the world with overall CS rates near 20% proving that increase in CS rates is not a solution for reduction in maternal and perinatal mortality rates, CS actually adds on to maternal mortality and morbidity rates including DVT. Therefore, each hospital and institute must analyse the high rates of CS and perinatal mortality rates and must develop appropriate guidelines to reduce the over roofing rates of CS. Health authorities, professional association, medical colleges, the public and media should work together to reduce maternal suffering and the financial burden on health system occurring due to the over roofing rates of CS.

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