

Patients choices for cesarean delivery: Enhancing C-section rate

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Abstract

Introduction: Caesarean section is one of the most common surgeries performed in modern obstetrics. At the beginning, the process was started for the interest of the mother but now it is frequently performed for fetal indications. Though, it was introduced in clinical practice as a life saving procedure for the mother and the child, as time elapsed, this procedure also developed some health care inequity in the world like other procedures of complexities. Under use in low income setting and adequate or even unnecessary use in middle and high income setting. **Enhancing C- section Rate:** In India the rate of caesarean delivery has increased from 3 per cent to 10 per cent between 1992-93 and 2005-06 (IIPS, 2007) are lower in comparison to some developing nations like Brazil and China. But, as India is the second most populous country in the world, a small percentage increase in rate affects huge number of population. In India, family members sometimes demand that the baby be born on an auspicious date and time by C-section for horoscopic/astrological preferences. **Conclusion:** Patients choice for the caesarian delivery is one of the major factors for rising trends in the C-section rate. Barring genuine indications, Obstetricians convenience and financial considerations are other major factors. With the prevailing situations patients must be informed about the later consequences like placenta previa, repeat C- section, postpartum hemorrhage and other morbidities.

Keywords: Patients Choices for Cesarean Delivery Enhanced C-Section Rate.

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INTRODUCTION

Caesarean section is one of the most common surgeries performed in modern obstetrics. At the beginning, the process was started for the interest of the mother but now it is frequently performed for fetal indications. Though, it was introduced in clinical practice as a life saving procedure for both the mother and the child, as time elapsed, this procedure also developed some health care inequity in the world like other procedures of complexities. Under use in low income setting and adequate or even unnecessary use in middle and high

income setting¹. In 2001 an estimated 21.4% of all deliveries in England and Wales were by CS, a fivefold increase since 1971². In 2002, more than one-fourth of all births (26.1%) in United States were CS deliveries, a highest ever reported rate³. In 2004, rate of CS births for first pregnancies increased to 29.1% of all births, continuing a rising trend. Since 1996, CS deliveries have increased by more than 40%⁴. While the hospital CS rate is 22% in Egypt⁵, CS epidemic as observed in Latin American countries is not yet evident in most of the Arab countries, where CS rate ranges between 5-15%⁶. The rising trend in CS is definitely not limited to USA and UK. In Delhi, CS rate in teaching hospitals currently ranges between 19-35%. In Sweden, Denmark and Netherlands, the CS rate is still close to 10% with some of the world's lowest maternal and Perinatal mortality rates⁷. The rising trend of caesarean section in modern obstetrics is a major concern in health care system all over the world⁸. With all the limited health care resources in a developing country like Nepal, this rising trend definitely has major implications. According to WHO, rates of caesarean section in many countries have increased beyond the recommended level of 15%³,

almost doubling in the last decade especially in high income areas like Australia, France, Germany, Italy, North America and United Kingdom.^{9,10,11,12}

ENHANCING CESAREAN SECTION RATE

In India the rate of caesarean delivery has increased from 3 per cent to 10 per cent between 1992-93 and 2005-06 (IIPS, 2007)¹⁴. are lower in comparison to some developing nations like Brazil and China. But, as India is the second most populous country in the world, a small percentage increase in rate affects huge number of population. If we follow the 1985 guidelines of WHO (as in 2009 WHO stated that 'optimum rate is unknown' and world regions might want to continue to use a range of 5-15% or set their own standard), at national level the present rate of CS does not seem to be alarming but at regional level the scenario is quite opposite. Using the data of National Family Health Survey, India, 1992-93, Mishra and Ramanathan (2002)¹⁵ found that among 18 large states, two states had CS rate near 15 per cent and the rest had less than 5 per cent. The works of Biswas *et al.* (2005)¹⁶ established that the basic emergency obstetric care (EmOC) were inadequate and causing maternal death in many parts of India. On the other hand, data from a large teaching hospital of Kolkata shows that between 1990 and 1995 of all deliveries, caesarean deliveries were carried out in 50 per cent cases (Pahari and Ghosh, 1997)¹⁷. Kambo *et al.* (2002)¹⁸ analyzing the data of 30 medical colleges found that the rate of CS increased from 21.8 percent in 1993-94 to 25.4 per cent in 1998-99. They also found that private sector deliveries had a higher odds ratio of a primary C-section delivery in comparison with public sector after covariate adjustment. Similar findings are indicated in several other studies (Padamdas *et al.*, 2000¹⁹; Mishra and Ramanathan, 2002¹⁵). In India, the family members sometimes demand that the baby be born on a auspicious date and time by CS as dictated by horoscopic/astrological predictions. This happens to be a popular indication of CS in China. The right to choose CS involves many other important issues which are considered to be outside the domain of this review. The relative safety of an elective CS in developed world has given rise to another controversy. However, CS on demand threatens national resources, and is an expensive and dangerous luxury. Moreover, FIGO²⁰ states that performing CS for nonmedical reasons is ethically not justified. The reasons for the dramatic increase in CS rates though not obvious are somewhat complex. The indications for performing CS have changed a lot in recent years and keep on changing for varied circumstances. Most C-Sections are currently performed to benefit the fetus, not the mother. Some common and important indications for CS include fetal distress,

prolonged labor, breech presentation, multiple gestations, previous section, and CS on demand. It is sad that CS are frequently and arbitrarily performed for fetal distress and prolonged labor without due respect to correct diagnosis and unbiased decision. During 1976-96, CS for singleton breech increased from 30% to 86% and for twin pregnancies from 13% to 47%²³. In 2001, 16.7% of all CS performed in UK, were on women previously delivered by CS²¹. Recurrent sections for three or four or more times are now frequently performed for various reasons. A trial for vaginal birth after a previous CS (VBAC) is considered safer than a routine repeat CS. But, it is unfortunate that there is currently less enthusiasm for VBAC by trial of scar or of labor. It is evident that whereas CS is doctor friendly, VBAC is not. The rate of VBAC in USA is down from 17% in 1996 to 11% in 1999²². RCOG recommended that all women previously delivered by one lower segment CS should be offered an opportunity to labor during their next pregnancy by promoting a trial of scar or of labor²¹. The rates for CS on demand in absence of any specific indication are increasing. Mackenzie *et al.*²³ observed that maternal request was one of the main indication for CS (23%) in 1996.

COSEQUENCES OF C-SECTION

It is unfortunate that the option to choose or perform a CS is not so simple. Even elective CS carries serious risks for mother and child. The proponents of CS claim that CS is an extremely safe operation with a negligible mortality and morbidity. This could be open to question and there must be many potentially fatal problems which might occur unpredictably that are often not counted in any national audit. A fourfold increase in maternal mortality rate associated with CS was observed even after controlling for medical and obstetric complications, maternal age, and preterm delivery²⁴. Even elective CS had a 2.84 fold greater chance of maternal death as compared to vaginal birth. In UK, a twofold increase in mortality with CS was detected²⁵. As regards immediate risks, all women undergoing CS are exposed to potential complications of anesthesia. Major complications were almost double in emergency CS compared to those in elective CS. Overall postoperative complications – major (pelvic infection, sepsis, deep vein thrombosis etc.) and minor (fever, urinary infection, wound sepsis etc.) – occurred in 35.7% of cases²⁶. Abdominal delivery is also a significant risk factor for emergent postpartum hysterectomy, mainly for adherent placenta, uterine atonicity, uterine rupture, fibroids, sepsis, and extension of uterine scar²⁷. Babies are also vulnerable to unnecessary risks from rising CS rates. The first danger to the baby is the 1% to 9% chance that the surgeon's knife

will accidentally lacerate the fetus (6% in non-vertex presentation)²⁸. A much more serious risk is respiratory distress syndrome (RDS). CS per se is a potential risk factor for RDS in preterm infants and for other forms of respiratory distress in mature infants²⁹. Another distinct hazard is iatrogenic prematurity. Even with repeated ultrasound scans, there may be errors in judging when to do an elective CS. As CS rates rise, so do premature births. Both RDS and prematurity are major causes of neonatal mortality and morbidity. Late consequences of CS: Recurrent CS, scar rupture, hysterectomy, and maternal and fetal deaths are some of the future important risks. Previous CS increases the risk of multiple placental abnormalities like placental abruption, placenta previa, and adherent placentation in subsequent pregnancies³¹. First birth CS had a 30% increased risk for placental abruption in subsequent pregnancy³². Numerous studies have confirmed the increased risk of placenta previa following CS. Women who had four or more deliveries with a single CS had a 1.7 fold increased risk of placenta previa whereas women with parity greater than four and four or more prior CS had almost a ninefold increased risk of placenta previa³³. Among women with placenta previa, the incidence of placenta accreta is almost 10%³⁴. Zaki *et al*³⁵ reported a 60% rate of placenta accreta with three or more cesarean deliveries. The leading indication for cesarean hysterectomy in USA is placenta accreta³⁶. As the incidence of CS continues to rise worldwide, the problem of placenta previa and placenta accreta is likely to become more common. Obstetricians should be ready to face these future consequences of today's decision of performing CS³⁷.

CONCLUSION

Patients choices for the caesarian were the major factors responsible for the rising trend of the C-section deliveries. Other important factors were Obstetricians choice for less time consumption and financial benefit. But the late consequences placenta previa, repeat c-section, post partum haemorrhage and numerous morbidity must be explained to the patients.

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