Review of Cesarean Section on Maternal Request in a Tertiary Care Institute; Scenario in Developing Country

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ABSTRACT

Mother requesting of caesarean reflects a belief among society that elective caesarean safer than vaginal delivery in term of fetus and mother. Although the study data neglecting the facts other skewed part in this issue is consideration of resources, as in developing countries, where maternal mortality is still high due to lack of adequate resources. Mother coming to obstetrician with mother's request should individualize in every case considering mother's argument, society and evidence base guideline.

KEYWORDS

Elective caesarean section, obstetrician, vaginal delivery

BACKGROUND

It has been three days and three nights now since the labor, I am at the end of my feeble strength. Nothing in my life has been prepared me for this agony begins, not all the prayer procession and intercession can help me, for I am beyond help. There is just me and pain. I have forgotten why I am here. I know only that if I scream loud enough someone will have to take the pain away. Once I heard the hastily summoned physician whispering asking the whether to save the mother or the child. Even then I was beyond caring for all I heard one of them suggesting that the infant should be cut from my body. [1] The caesarean delivery, a rescue and sometimes a shortcut to life has a short history. One of the earliest stories of performing caesarean is from 1411 AD when a German midwife is claimed to have performed seven caesarean where the both mother and baby survived.[2] One of the highest mortality of caesarean history is due to that it was performed on an exhausted woman who was in labor for a few days, they died because of puerperal infection bleeding, post operative ileus and eclampsia.[3] When the knowledge of aseptic technique came in the mid of 1800 century the mortality due to sepsis reduced by 25%.[4] Safety of caesarean section derives largely from the growing evidence in the literature the elective caesarean section (ECS) in experienced hands and in the absence of contraindications can be almost as safe for mother and child as a vaginal delivery.

Purpose and Review

Elective caesarean section on maternal request is arising mirror of conflicts which an obstetrician has to face willingly or unwillingly. Every aspect of ECS on maternal request is to be analyzed before making a concrete decision on it.

Recent Findings

In our institute rate of Cesarean delivery on maternal request(CDMR) is 6.2% (in year 2008-2010), while recent national audit in UK revealed that 7% all elective cesarean session were performed precisely for this reason.

INTRODUCTION

Giving birth is a significant event in peoples live. Women and men often refer to the birth of their children both in their thoughts and discussion many years after. For many women giving birth for the first time, the event appears to be unfamiliar, uncontrollable and intimidating .The wish to avoid vaginal birth during the last ten years resulted in a group of women approaching the obstetrician for elective

cesarean section. Caesarean sections(CS) performed without medical indication, better known as maternal request caesarean sections, have generated intense debate in recent time. While uncommon in the past, a recent national audit in the United Kingdom (UK) revealed that seven percent of all elective caesarean sections were performed for precisely this reason.[5] Though no national figures are available, as improving health care system in Indian urban areas and specially in tertiary health care system the figure is not different. As tertiary care institute, of North East, NEIGRIHMS data of elective cesarean on maternal result is 6.2% not much different from developed countries. This comparable rate is of great concern as developing countries judicial use of resources is of utmost important. Study from our institute reveals that mother's requesting for cesarean can be categorized broadly in three categories.

First one, seeing suffering of labour every day, as career oriented, with late marriage, medical personal women not willing to take risk and go through that suffering of vaginal delivery.

Second one, representative of higher socioeconomic class with planned pregnancy, they have their own knowledge of pelvic floor damage and its consequences related to sexual life. With above anxiety and planning one or two children, they were not willing to accept 6 – 18 hours of uncertainty of vaginal delivery.

Third group comprises of women having previous traumatic labour experiences like second stage forceps delivery with still birth, emergency cesarean at the end prolong labour with dead baby. Sometimes multiparous women request to have caesarean and bilateral tubal ligation which is usually not acceptable to our obstetrician. Another category of women who conceives with artificial reproduction technique request to have caesarean section and it usually accepted by the obstetricians

Historically, rapid advances in asepsis, surgery and anesthesia have contributed to the fascinating evolution of the caesarean section. Maternal mortality from ECS has become an extreme rarity, and is no longer sustainable as an argument against the ECS option. In the April 2003 edition of the Journal Article Summary Service, editor and publisher Athol Kent observes: 'With the incidence of 1 death in 78 000 women as quoted in recent British figures, plus data from Israel reporting ECS being safer than a vaginal delivery. Morbidity has replaced mortality on negative side of the argument.' Kent goes on to note that 'those arguing in favor of ECS make the point that a woman's decision to labour may end in an emergency CS with its attendant risks whereas an ECS removes such risk. Where CS rates are already high because of low tolerances for intrapartum variables, it may be statistically advantageous for a woman to opt for an ECS.' In a much publicized study 31% of female obstetricians in London declared that they would choose an elective caesarean section for themselves.[6] Not surprisingly, 69% of obstetricians when faced with a woman requesting a caesarean section would comply with such a wish.[7] The emergence of the maternal request caesarean section, as an entity, results from both the willingness of women to accept this intervention as well as the willingness of their obstetricians to accede to this request.

Why Do Women Prefer Caserean Section

While the reasons for this are varied, their elucidation is the key towards understanding and tackling this issue? Protection of the pelvic floor is a frequently cited reason for requesting a caesarean section and the basis on which the female obstetricians in London in the previously mentioned study made their choice.[7] The belief that childbirth inevitably damages the pelvic floor, and that caesarean sections can effectively prevent subsequent incontinence, prolapse and sexual dysfunction, is often tempered by strong cultural and peer pressures. There is controversy surrounding the etiology of pelvic floor dysfunction arising after pregnancy, and the cause of this may relate to pregnancy rather than labour and delivery.[8] Multiparity is a risk factor as evidence from long time, but Pelvic organ prolapse and urinary incontinence have been observed in nulliparous women; the absence of these conditions has been confirmed in many multiparous women.[9] These findings raise the possibility of an important individual variability in the predisposition to pelvic floor dysfunction.[10,11] Labour is variable in nature, onset and outcome. An elective caesarean section affords them the luxury of scheduling their absence from work. It avoids "wasting" maternity leave which may have to be consumed in late pregnancy by some women who feel unable to work at that stage. Despite the possible conveniences that elective caesarean sections offer, this does not appear to be the main reason for maternal request caesarean sections as most pregnant women are aware of the debilitating effects of major surgery.[12] The prospect of labour and subsequent delivery is understandably frightening, particularly to nulliparous women who have had no prior experience of it. In a small group of women, a morbid fear of labour and childbirth, sometimes termed tokophobia leads to a request for an elective caesarean section.[13] Tokophobia may occasionally be the result of child sexual abuse, rape or a manifestation of depression. Secondary tokophobia may occur as a result of a previous traumatic delivery. It is more of a religious belief, Most mothers who want a planned delivery usually consult astrologers or priests for the best timing and request for caesarean section.[14] Most of the women who had previous unsuccessful vaginal delivery resulting emergency caesarean section usually do not prefer vaginal delivery. In Indian scenario most of the gynecologist do not prefer also vaginal delivery after cesarean delivery. Some multiparous women request to have cesarean section because they want bilateral tubectomy at the same time.

Findings

Is a vaginal delivery safer than an elective caesarean section? Extrapolated estimates from the confidential enquiries into maternal deaths in the UK, (1516) A triennial report on all maternal deaths in England, Scotland and Wales, suggest that the mortality from an elective caesarean section is 3 times higher than in a vaginal birth.[17] Proponents of maternal request caesarean section point out that the mortality data for elective sections are drawn largely from a population of women who have valid medical indications for the operation. Safety data on elective caesarean sections on request in women with no inter current medical conditions are not available and may well show it to be safer than elective caesarean sections in general. Nevertheless, numerous studies have recorded the higher risk of caesarean sections, not all of which can be accounted for by complications which necessitated the operation.[18-21] Morbidity is a less tangible aspect of safety that is difficult to quantify. That said, it is important to acknowledge that ECS is not entirely risk-free. Febrile morbidity and sepsis, wound infection, blood loss, Operative injury, predisposition to placenta previa and uterine rupture in next pregnancy and anesthesia-related complications may be uncommon, but always remain a potential threat for mother and baby. The prevalence of hysterectomy due to hemorrhage in caesarean section is 10 times higher than in vaginal birth.[22] There are a number of surgical complications reported related to cesarean delivery they are damage to the bladder, ureters, laceration of the uterine artery and other abdominal structures.[23] Pulmonary embolism remains a leading cause of maternal mortality is far more likely to occur following a caesarean section. There is evidence of decreased fecundity, increased risk of ectopic pregnancies, placenta previa and worse infant outcome in future pregnancy. Compared with vaginal deliveries, the risk was three to five times higher for maternal death, four times higher for hysterectomy, and twice as high for being admitted to intensive care and hospital stay more than seven days for cesarean delivery including intrapartum and elective cesarean section.[24] The percentage for women following an elective cesarean delivery increased to six percent according to data from the 2005 World Health Organization survey. In addition, blood loss for a healthy woman after a vaginal delivery is estimated at 500 ml in comparison to 1,000 ml for a cesarean delivery, thus increasing the possible need for a blood transfusion during the postpartum period.[23] The literature reviewed defines postpartum hemorrhage as having a blood loss of more than 500 ml after delivery.[25] Undeniably; there is an association between pregnancy and pelvic floor disorders, such as urinary and fecal incontinence and prolapse. Ultrasound findings suggest that anal sphincter disruption occurs in 33% of women undergoing an uncomplicated spontaneous vaginal delivery.[26] This figure seems alarmingly high, particularly in a group of women in whom overt sphincter damage has not occurred. Much of the pelvic floor weakening may be due to pregnancy. Urinary incontinence commonly starts in pregnancy and rarely, if ever, after childbirth.[27,28] In a population of women who have been delivered exclusively by caesarean section, protection against subsequent incontinence is only apparent in women who have had one child.[29] When repeat caesarean sections are performed, all protection is lost and more than a third of women who have had three caesarean sections report urinary stress incontinence.[30] The prevalence of fecal incontinence in one large study was six percent during pregnant and only 5.5% after delivery, suggesting that all or most of the causation could be attributed to pregnancy.[31] It has also been suggested that instrumental deliveries, particularly forceps deliveries, long second stages with consequent nerve damage and unnecessary episiotomiesare the true culprits in pelvic floor damage.[21,31] Strategies to avoid these predisposing factors may have a greater impact in the prevention of fecal incontinence than further increases in caesarean section rates. In the long term, it is possible that ageing pelvic issues may counteract any benefit of cesarean section.[32]

Neonatal Consideration

The belief stems from the knowledge that there is 1 intrauterine death between 38 weeks and delivery in 600 pregnancies.[32] These largely unexplained stillbirths are distressing, especially since antecedent events are usually absent and, therefore, a strategy to prevent them cannot be devised. Proponents of maternal request caesarean section argue that an elective caesarean section at 38 weeks would prevent these intrauterine deaths. It is further postulated that one death in 1500 neonates >1.5 kg in labour, one case of hypoxic ischemic encephalopathy in 1750 births and 10% of cases of cerebral palsy would be avoided by a policy of elective caesarean section.[33,34] These estimates are based on the risks of adverse fetal outcomes associated with labour. This argument for elective caesarean section is flawed by virtue of the fact that it disregards the possibility of iatrogenic fetal damage and makes the assumption that abdominal delivery will circumvent all the risks associated labour. We are reminded by the findings of large series of elective caesarean sections that normal babies do die after elective caesarean sections. This was as high as 1.6% in the term breech trial and 0.5% in one observational study of repeat caesarean sections.[35,36] Respiratory distress syndrome and transient tachypnea in the newborn are more common after delivery by caesarean section.[37] This is particularly so if the woman has not laboured. In addition, elective caesarean sections are scheduled based on the expected date of delivery (EDD).When the EDD is uncertain, a proportion of caesarean sections may inadvertently be performed prematurely, resulting in a further increase in neonatal respiratory complications. Elective caesarean section before 39 weeks of should be given steroids to prevent respiratory problems (Antenatal Corticosteroids to Reduce Neonatal Morbidity and Mortality ,GREEN – TOP GUIDELINE NO.7 OCTOBER 2010) Fetal lacerations

sustained at the time of caesarean section are not rare. In 1 study, this was documented in 1.4% of all vertex presentations.[38] The analytical difficulty is that elective caesarean section numbers are small, with less than 10% of deliveries occurring by this route. Planed vaginal delivery has less NICU admissions, oxygen resuscitation and jaundice.[39]

Medicolegal and Ethical Issue

Can caesarean section in an uncomplicated pregnancy on maternal request is justified in ethical point of view? There are several aspects to be considered. The physician should discuss medically alternatives to give the patient an opportunity to have an informed consent. Patients have a right to decline care but not to demand treatment that the physician holds to be unnecessarily risky. In case of caesarean section on maternal request the surgery must be consistent with desired outcome. In the conception of" outcome" lays not only outcome from a physical but also from a psychological perspective. However decision concerning the route of delivery in pregnancy is different from outside the pregnancy for two reasons. One is the presence of fetus. How and what degree the interest of the fetus to be considered in the decision about caesarean section is not a straight forward issue. Consent for delivery is also different from consent from other medical areas because labour and delivery are unlike other medical events which is an evitable physiological processes.[40] The obstetrician has autonomy and beneficence-based obligation to the mother, and the mother and obstetrician have beneficence – based obligation to the fetus. Legal considerations aside, the obstetrician is duty-bound to ensure that his/her actions are ethically correct. The FIGO Committee for the Ethical Aspects of Human Reproduction has argued that it is unethical to perform a caesarean section without a medical indication because of inadequate evidence to support a net benefit.[41] In their deliberations, FIGO distinguishes between the individual's rights and the rights of society. When the rights of society are deemed to be of greater importance than the individual's rights, the latter becomes a privilege. The rights are the same for a woman in any country, but the privilege varies. In a resource-poor country with socialistic health care, performing elective caesarean sections for non-medical reasons may override the rights of society if insufficient resources remain to provide for medically indicated caesarean sections and may be refused for that reason alone. In a developed country with ample resources, this privilege may be allowed. While this assertion may be acceptable, it still leaves us with the dilemma of whether to oblige and provide that privilege, especially if the woman is prepared to pay. As obstetricians, we have to contend with the difficulty of decision-making as the balance of benefit versus harm between caesarean section and vaginal delivery is crucial to this debate. Hence, performing an elective caesarean section would be ethically sound if it was genuinely safer or more beneficial than labour and vaginal delivery. Refusal to perform one would seem reasonable if the intervention was more likely to result in harm than good. When the set of risks for an intervention and the set of risks for refusing the intervention (and allowing the natural course of events to take place) are perceived to be similar in magnitude, the patient's choice can be reasonably included in the equation. Perhaps this third scenario best sums up the ethical ground on which the maternal request caesarean section stands. No general surgeon would agree to perform a total appendicectomy in a patient with no appendix pathology in spite of it being a vestigial organ, just as no gynecologist would agree to perform a hysterectomy for a healthy 20-year-old woman to even if family is complete to prevent uterine and cervical cancer. Yet, 69% of obstetricians would perform a caesarean section for maternal request.[7] This can only mean that the obstetricians believe that the risks of caesarean section are so close to the risks of labour and vaginal delivery that maternal choice can be allowed to influence this decision.

Obstetrician's Decision

First step for the obstetrician is to listen the patient and why and what source of information made her to request for the caesarean section. Once the reasons for the request have been established, the obstetrician should give clear and unbiased information about the validity of the reasons provided by the woman to support her request and the established benefits and disadvantages of an elective caesarean section. Clinicians are invariably influenced in their outlook by anecdotal experiences and personal opinions. Every effort should be made to provide only information that has been scientifically proven to be true and to make known the aspects for which benefit or harm are unclear. Then plan should be formulated after discussing all the pros and cons of both vaginal and abdominal route of delivery. In women who still want a caesarean section, the obstetrician may feel that carrying out this request is justified. This may be particularly so in women who have suffered previous traumatic experiences, such as the intrapartum death of a baby. In these circumstances most of the obstetrician accept mother's request .While it is true that such events are not prevented by caesarean section; the psychological stress faced by such women can be very debilitating. Obstetricians who feel that, in good conscience, they cannot agree to an elective caesarean section on the basis of the reasons provided by these women should refer these women to a colleague for a second opinion.

CONCLUSION

Incidence of caesarean sections performed on request without medical indications is rising. The reasons for this are not only for perceived medical benefit, but are also due to social, cultural and psychological factors. Despite dramatic improvements in the safety of anesthesia and surgery, mortality and morbidity are greater for elective caesarean sections compared to vaginal deliveries. An

association exists between pelvic floor damage and childbirth, but this cannot be attributed entirely to vaginal deliveries and does occur even after a caesarean birth. The incidence of late intrauterine deaths is unlikely to be reduced by a policy of universal elective caesarean section, as these procedures carry a risk of iatrogenic fetal morbidity and mortality. The legal and ethical issues of request caesarean sections are complex. The validity of informed consent for non-indicated surgery is unclear. An individual has his/her rights and so does society. When society's rights are judged to have priority, the individual's right becomes a privilege. Based on this principle, maternal request caesarean sections must not compromise the provision of care to women requiring medically-indicated caesarean sections or should not dent the resources of public health care. In dealing with requests for caesarean sections, obstetricians should establish the reasons for the request and provide clear, unbiased information based on the best available evidence. Individualized modifications to the management of labour may allow some women to have vaginal deliveries. A second opinion from a colleague may help the patient to reconsider the request and make a more informed choice.

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