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Maternal request for cesarean delivery; a solid indication or a window for complications; a teaching hospital experience

Abstract

Background: Cesarean Section on Maternal Request (CSMR) is a growing phenomenon whose literature needs to be appraised, and it is exemplified by a steady increase in the world neck and neck by high percentage of births by CS. It is even more luckless that giving birth by elective CS based on the pregnant woman's choice has become the first place among the justifications, notwithstanding its direct and long-term complications.

Methods: This retrospective study reviewed data of all CS deliveries during the year 2022 at our hospital using electronic medical records in the hospital information system. Retrieved data include baseline demographic characteristics, mode of delivery, indications, and the type of CS, aiming to clarify the reason for CS to challenge the percentage of CS based on the yearning of the pregnant woman without a medical reason; to identify, analyze and try to solve the ethical problem raised up by the pregnant woman's request for CS.

Results: The results revealed two significant facts; a sturdy noteworthy increase in the percentage of pregnant women delivering by CS compared to vaginal delivery at 54% versus 45.6%, and a sharp increase in the CS deliveries on maternal requests at 22.78%. The main reason for this shifting practice is the previous one CS followed by a decision that was taken on personal and family convictions. These harvested results revealed a significant increase in the percentage of pregnant women not receiving proper antenatal counseling about the appropriate method of delivery, with improper justification to jump over nature.

Conclusion: Cesarean section should be signposted when on earth there is any indication or menace of detriment to the maternal and fetal binomial. If in earlier times "labor death" was a fact of life, nowadays it is astonishing and disgraceful the death of a mother due to pregnancy-delivery-postpartum. The proclamation that vaginal delivery is better because it is "natural" cannot and should not be taken to the last consequences under the risk of bad luck. The best form of birth is the safe one. To provide every pregnant woman with the right to choose her child's mode of delivery is to arbitrate for her sovereignty, yielding her respect and pride, nonetheless, it should be minimalistic and not absolute under this banner. Minimizing the rate of primary CS carries the secret key to ideal obstetrical care.

Keywords: cesarean delivery, indications, maternal request, women's autonomy, Primary CS

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Introduction

Generally speaking, one of the surgical facts nowadays worldwide is that CS is the most common surgical procedure, It is a surgical operation that may be performed programmed for a variety of reasons, or in an emergency manner due to an emerging necessity, keeping in mind that the rate of short and long-term complications of CS is growing up and increasing dramatically, and this rate is doubling in cases of repeated cesareans This painful fact forces the parties to the laboring equation to stop the elective practice, start a proper discussion, and reconsider their circumstances in order to reduce their risks.[1] In fact, mostly once an obstetrician deals with a pregnant woman with a past history of CS, he will take a deep breath to track an excuse for the method of delivery of the current pregnancy by CS, particularly, when the previous indication is not convicting or the previous delivery is not under his supervision. The analysis of the conditions of the operation and its complications should clarify all the risks on top of his response to the lady's request that will be smooth, under the slogan of respecting the freedom of the lady. The analysis of the conditions of the operation also must clarify the possible complications and risks including the short-term complications which are relatively wound infection and bleeding is the most common, but, the future long-term complications due to this unnecessary abdominal-uterine scar jumped to the front page of thinking, leading to an increase in the number of victims for this procedure. Mostly, the top future complications that endanger the women's lives life in the subsequent pregnancy included mostly abnormal placentation, uterine rupture, unexplained fetal death, and postpartum hemorrhage.[2] This decision will pave the way or a more difficult confusion and an effort to find a justification for upcoming births by CS as an easier solution for both sides of the equation; the obstetrician and the pregnant woman. Consequently, this fact complicated the decision-making task, especially for first-time pregnancies, he should address consideration of future pregnancies and implications across the reproductive lifespan. In the decision for prearranged CSMR, one must remember the third party of the equation; the newborn; as there is an increased risk for breastfeeding problems, respiratory distress and transfer to the neonatal intensive care unit[3] In the long run, increasing evidence suggests that a planned cesarean delivery affects the development of the child's immune system by providing a vulnerability for immune-mediated diseases such as asthma, allergies, diabetes mellitus (type 1) and coeliac disease.[3] We have to search for justifications for choosing a pregnant woman to give birth by a programmed CS, versus planned vaginal delivery: anxiety over the birthing process, concern for perineal trauma during vaginal delivery, the potential for urinary incontinence or pelvic organ prolapse, or the desire of selecting the date of delivery, all are

no more valid reasons without interpretations. Worldwide, the CS rates increased from 12% in 2000 to 21% in 2015.[4,5] A collected data (2010-2018) published from 154 countries covering 94.5% of world live births showed that 21.1% of women gave birth by CS worldwide, with averages ranging from 5% in sub-Saharan Africa to 42.8% in Latin America and the Caribbean.[6] Delivering by CS is associated with higher socioeconomic status in low-income and middle-income countries,[5,6] while the opposite has been shown in high-income countries like Norway.[7] In European studies, preference for CS is associated with psychosocial vulnerability.[8] In this article, we use the systemic approach to identify, analyze and attempt to focus on the problems raised by a pregnant woman's request for cesarean delivery in absence of medical indications together with no contraindication for vaginal delivery which suits our society and our environment.

Material and methods

Our current study is a retrospective review of a total number of 419 out of 3406 deliveries who underwent CS upon their request in our department in the study period extended from the first of January 2022 to the first of January 2023 at Jordan University Hospital [JUH], the only tertiary hospital in the capital city; Amman, the biggest teaching hospital, aiming to highlight the common reasons behind their decision and to analyze the outcome of this surgical procedure. The study was carried out after the approval of the Department of Obstetrics and Gynecology board, the Institutional Review Board (IRB), the Ethics Committee, and the Scientific Research Committee (SRC) at our hospital. We used the SPSS (Statistical Package for the Social Sciences) for data analysis. The essential statistical analysis values of the study were calculated using Chi-square and Wallis test. All women who underwent CSMR are involved; For the tenacity of this study, CSMR has been defined as Cesarean section by maternal request or without medical indication; the first CS implemented beforehand the start of labor and completed in the absence of maternal and/or fetal indication together with no obstetric contraindication for vaginal delivery. The vivacious data to fulfill the aim and scope of the study were determined then the questionnaire was designed to encompass these points and collect the targeted data. The medical record of every woman involved in the study has been reviewed. These data are limited because no randomized trials on cesarean delivery for non-medical/ non-obstetrical reasons have been performed. Women were not eligible to participate in the survey of those who requested CS during labor. Simple and multivariate logistic regressions were applied to independent variables (maternal age, parity, education) to determine their influence on CSMR.

Results

The mean age of ladies who underwent CS, in general, was 32.19; ranging between 18 to 46 years, while the mean gravidity was 3.49; ranging between 1 to 19, where the gestational age mean was 38 weeks; ranging between 30 to 41 weeks; with a mean of 38 weeks as summarized in Table 1. About 1839 delivery by CS out of 3406 deliveries (53.99%) took place at our hospital during the study period; the CS rate in our hospital was generally high in the last years; the years nominated to be the Covid-19 pandemic. It was 46.65% (1707 delivery out of 3530 deliveries) in the year 2021, and 48.36% (1630 delivery out of 3493 deliveries) in the year 2020; the 2 years preceding the study as clarified in Table 2. In Table 3, we noticed that: a main item of indication for the current CS is the previous 2 CS or more; it was on the top of the list representing 28.92% (532 out of 3406), CSMR with its various names, circumstances, and justifications reported to be ranked the second in the indications list as 419 of the total deliveries (22.78%) were performed due to this controversial and argumental indication. Fetal distress, failed induction of labor, multiple pregnancies, and malpresentation were the next common causes on the list subsequently.

Table 1 Demographic data

	Minimum	Maximum	Mean	Std. Deviation
Age (years)	18	46	32.19	5.599
Gravidity	1	19	3.49	2.18
Parity	0	9	1.88	1.552
Abortions	0	15	2	5.12
Gestational Age (weeks)	30	41	38	3.33

Table 2 number and type of deliveries in the last 3 years

Year	Vaginal delivery	Cesarean section	Vacuum delivery	Forceps delivery	Breech vaginal	Total
2020	1838 (52.62%)	1630 (46.65%)	20 (00.59%)	1 (00.02%)	4 (00.12%)	3493 (100%)
2021	1784 (50.54%)	1707 (48.36%)	31 (01.11%)	5 (00.05%)	3 (00.04%)	3530 (100%)
2022	1553 (45.60%)	1839 (54.00%)	11 (00.32%)	2 (00.06%)	1 (00.02%)	3406 (100%)

Table 3 indication of CS in the year 2022

Indication	Number	Percentage (%)
Previous 2 or more cesarean section	532	28.92
Maternal request with previous 1 cesarean section	296	16.09
Fetal distress	245	13.32
Failed induction of labor	167	9.08
Multiple pregnancy	142	7.72
Malpresentation	124	6.74
Maternal request	123	6.69
High risk pregnancy	64	3.69
Failure to progress	51	2.77
Placenta previa	41	2.02
Previous cesarean section with short pregnancy interval	21	1.14
Previous myomectomy/hysterotomy	13	1.1
Old maternal age	13	1.1
Failure to descend	7	0.38
Total	1839	100

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Discussion

The sight that vaginal birth is superior in the absenteeism of respectable medical indications for CS is evidence of the weight given to medical efficacy, a notion encircling shrewdness of risk and benefit as well as alarms for optimizing the use of resources. Nevertheless, over the last decades, we noticed that there are many medical and surgical practices that lack scientific justifications, and are mixed with many patient rights by choosing the type and method of treatment, but this matter requires rules and determinants that are not related to the patient's absolute rights because purely technical matters with their dimensions and complications are the responsibility of the treating physician, who can determine the damage resulting from the procedure without justification. The first CS rate published was 6% in the USA in 1937. Over the last few decades, CS rates have constantly increased all over the world to as high as 50%.[9] The greatness of these increases has been greatest in the USA, where one-third of births are now by CS.[10] Recent studies have shown that CS rates above 13–15% do not result in improvements in perinatal mortality.[11] Pregnancies after previous CS play a major contribution to the current CS rate in the world generally and in Jordan in a particular manner, but the primary rate has also been on the increasing track. The repeated CSMR is the shadow of the first one which must be the focus of review by the authorities. There are large disparities in CS rates around the world. Figures in northern Europe, remain below 20% but climb over 50% in South America, China and South-eastern Europe. More often than not in low- and middle-income countries, rates are increasing rapidly in urban areas, but remain dangerously low in rural settings and for vulnerable groups.[12] Moreover, the prevalence of cesareans is positively associated with maternal education in all countries of the world.[13] Cesarean sections are one of the most common surgeries around the world and can be life-saving for both mother and baby in critical moments or seconds when the time is the main player for the future life when complications occur during pregnancy or labor. However, there has been an alarming global trend in increasing CS over the past 30 years.[14] Currently, Brazil presents, together with China, the highest prevalence of cesareans in the world.[12–14] Both countries are jointly responsible for half of all cesareans worldwide.[12]

There is no argument about the guided facts in medicine unless any represented a dangerous situation if it is used in a way that poses a threat to the patient's life. The standard fact that the obstetrician is channeled by the four principles of medical ethics: autonomy, justice, non-maleficence, and beneficence, is still the fuel of practice. The application of these principles puts the doctor in an objectionable position, which requires wisdom, fortitude, and serenity in making instant crucial decisions that have health risks that may not be welcomed by the woman or her family. The two most important principles are autonomy, which involves respecting patient values, and non-maleficence, which means not causing harm. When taking a course of action this should have the greatest chance of benefit with the least risk of harm. Not responding to the women's desire sometimes does not mean oppression, because the moral and medical responsibility for her life and the life of her fetus lies with the powers of the attending physician. When there is a dearth of proof it can be difficult to make a decision, in the absence of evidence, it is difficult to determine how to act to kowtow to the moralities of bigheartedness and non-maleficence, and waning to perform CSMR goes against the remaining principle of autonomy. There is a danger, in respecting autonomy, of cheapening expert clinical judgment and potentially reducing obstetricians to meager operators. The assertion that vaginal delivery is better because it is "natural" cannot and should not be taken to the last consequences under the risk of bad luck. The best form of birth is the safe one. To provide every pregnant woman with the right to choose her child's mode of delivery is to arbitrate for her sovereignty, yielding her respect and pride. However, this phrase should not be interpreted in absolute linguistic terms, as there is a moral duty mixed with medical care that the attending physician must use when making the appropriate decision for the best method of childbirth.

CSMR is the most frequently performed operation these days relatively disturbing and without medical support, which is the subject of criticism and tensions among the medical community resolving the matter, as we notice a steady increase in the rates of births by emergency or programmed CS, coupled with an increase in the percentage CS in general, which is performed at the request of the pregnant woman. In our study, a total number of 3406 deliveries took place at our hospital during the year 2022, where CS represented about 54% (1839 delivery) in total; more than half of ladies giving birth by surgical delivery, partly because our hospital is the only teaching and the biggest referral and university teaching hospital engaged with a stable and ideal residency program in the capital city Amman for all the difficult and complicated cases, specifically during these critical years of the Covid-19 pandemics. The main reasons behind this women's decision are mostly similar all over the world; dread of delivery, the fright of pain, family burden, an aforementioned depraved experience, more control over events, improved care and conserving the honesty of the pelvic floor, and the new fashion to limit the number of children in the family to a minimum due to the difficulties of life. Selecting the date of delivery due to social reasons is an important issue in this manner as some women believe in horoscopes and read the future based on legacies, while on the other hand, a main non-justified indication of choosing CSMR in our hospital which is not convincing is based on a financial and economic fact, as there is a form of temporary governmental health insurance that covers the costs of childbirth by CS and does not cover the costs of natural childbirth, which is a major reason for the unfortunate pressure on health service providers. In the current study, the incidence of CSMR represented about 22.78% (419 deliveries out of 1839 deliveries), mostly due to previous CS in 16.09% (296 women), and the rest without previous experience of such situation in 6.69% (123 women). We are under the same category of countries that cannot control the birth rate collision, some countries have experienced remarkable escalations. Egypt, Turkey, Dominican Republic, Georgia, and China have all had over 30 percentage points increase in their CS rates over the last 24 years. For example, in Egypt, according to the latest data, more than half of all women give birth by CS without much difference between urban and rural areas.[15]

To highlight and simplified the topic of CSMR which is not a well-recognized clinical entity, we have to remember well that the existing information that compared the risks and benefits of CSMR and prearranged vaginal delivery does not afford the heart for an endorsement for either mode of delivery. When a woman desires a CSMR, her healthcare provider should deliberate specific risk factors such as age, body mass index, the truthfulness of probable gestational age, reproductive plans, personal values, and folk background. Sovereignty is indissolubly linked to the Western tradition of freethinking. The attitude of admiration for sovereignty requires that the views of those who are capable of negotiation about their individual goalmouths be sought and respected. As the fetus lacks such proficiencies, the question of fetal sovereignty does not arise.[16] When a pregnant woman has the opportunity to choose a method of delivery between a vaginal and a programmed CS, the decision to choose will be difficult. Between her concern for the life

of her fetus and her concern for her privacy and her life, especially in the presence of circumstances that drive the decision.[17] Having convictions is sometimes not enough, as there is hesitation, fear, and dread sometimes in choosing to give birth by cesarean section, especially among couples in countries that adopt an increase in the rate of childbearing.[18]

The notion can be traced back to 1985 when a provocative paper published in the New England Journal of Medicine suggested: "prophylactic Cesarean delivery at term to avoid the risks linked to "passive anticipation of vaginal delivery".[19] This is an argumental statement, that is not valid nowadays, and we should not build on it the future of our humanity. A sentence whose conditions have changed today with technologies and modern medical care. We must remember and not neglect the touching fact that CS is more dangerous to a woman›s life in comparison to vaginal delivery.[20] Not only that but there is also scientific evidence of the existence of health complications in the growth of children, according to what was published in recent research.[21–24] Every person involved in this decision must remember the golden role in life" There is no service without a price or tax, even in the health field". This wisdom is absolutely true. The complications reported within 42 days after CS such as bleeding, infection, organ damage, wound dehiscence, and bowel obstruction are well recognized.[25] while the long-term complication is a long list, but mainly abnormal placentation and ruptured uterus in subsequent pregnancies, bowel obstruction, incisional hernia, and chronic abdominal pain due to pelvic adhesions.[26–28] These possibilities contributed to a significant effect on women's lifestyles. Not surprising to know that CSMR was associated with a lower rate of exclusive breastfeeding and a higher rate of formula feeding in a low-risk Chinese population.[29] The famous statement by Kingdon et al.[30] warns clinicians to be aware that women do not always want choice. The literature has brought up the controversial yet prevalent issue of socioeconomic backgrounds affecting the quality of care women receive. Women from higher socioeconomic groups are more likely to receive an adequate level of information regarding the mode of delivery and have clinicians agree to their preferred plan for cesarean.[30] Perhaps employing rationality, wisdom, and advice in surgical decisions, away from emotion, will give a positive outcome, but that also requires distinguished surgical skills to deal with complications that may arise.[31,32] We must remember the three key contributors to maternal morbidity and mortality related to CS include impediments of hemorrhage, surgical site infection, and venous thromboembolism. All women should be screened for risk factors associated with these major complications during the antepartum, intrapartum, and postpartum periods to assure the availability of immediate resources based on the assessment.[33,34]

A planned CS is also viewed by mothers as a safer mode of delivery because it may reduce the risk of intrapartum death, hypoxia, and birth trauma. The cesarean section also eliminates detrimental intrapartum events such as shoulder dystocia or non-progress of labor and reduces the risk of meconium aspiration and lowers the possibility of intubation in infants. Conversely, a planned vaginal delivery places neonates at an increased risk of intracranial hemorrhage, asphyxia, encephalopathy, and infection. This contradiction that weaves fear must occupy a priority to clarify its dimensions, and it is the duty of medical service providers in the first place. Most women desire cesarean births to avoid the potential for perineal trauma associated with normal and assisted vaginal delivery. Even if we think in a way that guarantees health outcomes for everyone, this will not conflict with respecting the woman's private decisions and autonomy.[35] Trial of labor after CS (TOLAC) is deemed a good choice for pregnant women to reduce unnecessary cesarean sections.[36,37] CSMR is a form of overutilization of the process, which has adverse health outcomes and economic constraints on the user and the system.[38] Every effort should be made to put the spontaneous vaginal delivery back in its golden palace in the art of obstetrics kingdom in medicine because delivering a baby by surgery without ethical indication or by using a vacuum extractor or forceps fashions more risk of neonatal or maternal injuries, even death of the baby.[39] Unnecessary surgical procedures can be harmful, both for a woman and her baby. It's worth mentioning that worldwide CS rates have risen from around 7% in 1990 to 21% today, and if this trend continues, by 2030 the rate will be more than 50%, the research suggested.[40,41] The reasons for this trend are still largely misunderstood and controversial among researchers.

Conclusion

This review provided a debate on the choice of pregnant women in uncomplicated pregnancies on the mode of birth from various stakeholders. The furthermost undeviating approach for plummeting CS could be the official embargo of CSMR. Taken together, both maternal mortality data and neonatal morbidity associated with CS clue us to recognize that abdominal birth is not equivalent to a vaginal birth in human beings. Behindhand, the women requesting delivery by elective CS for no medical reasons, must be innumerable justifications and life proficiencies necessitating prudently embattled attention and health care. Previous births are an important driver; thus, maternally requested CS should be regarded partly as an iatrogenic problem. Nevertheless, several public health campaigns in Jordan must be stressed upon this point due to high parity traditions. The request for CSMR should not be discussed at the time of delivery, as women, in general, are not happy to go through painful exercises but we must think for the future of this lady from a different level of thinking. CSMR is an evolving entity in obstetrics practice in developing countries as delay in conception, fear of labor pain, and loss of a baby during labor appear to be strong motivations.

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Conflicts of interest

The authors report no conflict of interest.

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