

Which are the most Important Indications that must be solved by Cesarean Section? This is a Retrospective Study Conducted in a Tertiary Hospital Center in Tirana



Healthcare

Keywords: Cesarean delivery, fetal complication, maternal indication, repeated cesarean delivery.

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Abstract

Cesarean section is a major surgical procedure most commonly performed in women. In the last three decades it is increased all over the world and it is a major concern for many countries. Increasing number of cesarean delivery is occurring in countries with middle and higher income. Cesarean section might be an emergency procedure to save the mother/fetal life. Determination the incidence of cesarean deliveries, identifying contributing factors is the aim of this study. The study included all records from clinical charts, from January 2008 till December 2010. For statistical date is used SPSS 11.5 package and Chi-Square test. Accepted error is less than 5% (p <0.05). The incidence of cesarean delivery is 35.4 %. Repeated cesarean delivery is the main factor in the rising incidence of Cesarean section from year to year.

Introduction

Cesarean delivery is a surgical procedure which applied in pregnant women who can not give vaginal birth. This procedure realized by an incision in uterine wall.



Fig.1 Cesarean delivery

Types of Caesarean Section

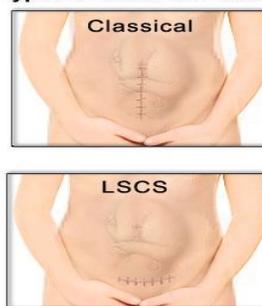


Fig.2 Types of cesarean section.

Cesarean section is a major surgical procedure most commonly performed in pregnant women[1]. In the last three decades it is increased all over the world[9] and this surgical procedure is a major concern for many countries[7]. This technique, was born and developed time by time for the sole purpose of preventing the fetal and maternal complications. Increasing number of cesarean delivery is occurring in countries with middle and higher income[14]. But in the other side there are no scientific sources which show significant benefits for the mother and the baby. So this increasing of cesarean delivery is unjustified[4,5,12-15]. Cesarean delivery can be accomplished because the mother chooses it with her own decision[8], but it can also be performed as a result of unpredictable events [3,11]. This surgical delivery may be an emergency procedure to save the mother and / or baby. Such emergencies may include: fetal distress, abruption of the placenta, umbilical cord prolaps, placenta previa, active herpes etc. But this delivery has potential risks for the mother as well as the fetus if we compare it with vaginal delivery[2]. Because when applying this surgical procedure is necessary the incision of uterine wall, which is associated with blood loss, increased risk of damage to internal organs, especially the bladder and uterine vessels. It may also be necessary re hospitalization because of these women wound infection. Potential risk for maternal mortality as a result of complications from anesthesia, puerperal infection, thrombosis. Such complications have an incidence of about 3.6 times more than the vaginal delivery. While children born by cesarean section represent a potential risk for respiratory complications. These complications are the most common reason for transfer the babies in the neonatal intensive care unit.

But despite the complications that may be associated with cesarean delivery we see that the number of cesarean section is increasing[10].

Aim

Determination the incidence of cesarean deliveries for the years 2008-2010. Identification of contributing factors that affect the births by surgical procedure, but also determining the trend of these factors.

Methods

This is a qualitative, descriptive and retrospective study. In this study are included all records of clinical charts from obstetric department at Maternity Hospital " Koço Gliozheni " Tiranë, from January 2008 till December 2010. The data collection procedure consisted of surveying information available in clinical records. For statistical date is used SPSS 11.5 package and Chi-Square test. Accepted error is less than 5% (p <0.05). In this study are included only pregnant women which gave birth by surgical procedure. Have been calculated also demographic and obstetrical data from clinical charts.

Results

By analyzing the clinical charts for three years, results that were born 18 589 babies of which, 6585 were born by surgical procedure. So the rate or the incidence of cesarean section is 35.4 %. This mean that approximately 1 in 3 births is performed with cesarean section. In fact this incidence of cesarean births is very high, considering what WHO recommends for cesarean births. In 1985, the World Health Organization (WHO) determined that there is no justification for any region in the world to have cesarean childbirth rates over 10-15%, supporting the hypothesis that when this rate increases to more than 15%, the health risks overcome the benefits. Two decades later, however, the cesarean childbirth rates continue to contradict the WHO recommendation, in developed as well as in developing countries[12]. In 2008 have born 5710 and 2030 of them are born by cesarean section. In 2009, 6188 babies have born, and 2211 of them have born by cesarean section. In 2010 we see that the number of live births is increased and the same thing we can say for the cesarean section with a ratio 6691/2344.

Table 1. Describe the percentage of cesarean section.

	2008	2009	2010
N. Total live birth	5710	6188	6691
N. C/S	2030(35.55%)	2211(35.73%)	2344(35.03%)

Graph.1 Show the ratio of total live births and cesarean section for years 2008-2010.



By analyzing the clinical charts we see that we have 6691 live births and 2344 are born by cesarean section in 2010. In 2009 by 6188 live births, 2211 of them were born by caesarean section and in 2008 we see that we have fewer live births and also cesarean section. The table which is shown below explains some contributing factors that affect the cesarean delivery rate.

Table 2.

	2008- N 2030 C/S	2009- N 2211 C/S	2010-N 2344 C/S
P. Previa	3.1%	1%	2%
Multiple Gestation	2.1%	1.9%	3%
Preeclampsia	9.3%	6.8%	8%
Abnormal presentation of fetus	5.2%	3.9%	4%
Fetal distress	18.5%	18.4%	15%
Dystocia	6.2%	4.9%	6%
Premature rupture of membranes	14.4%	12.6%	10%
Previous cesarean section	34%	35.9%	38%
Others	7.2%	14.6%	14%

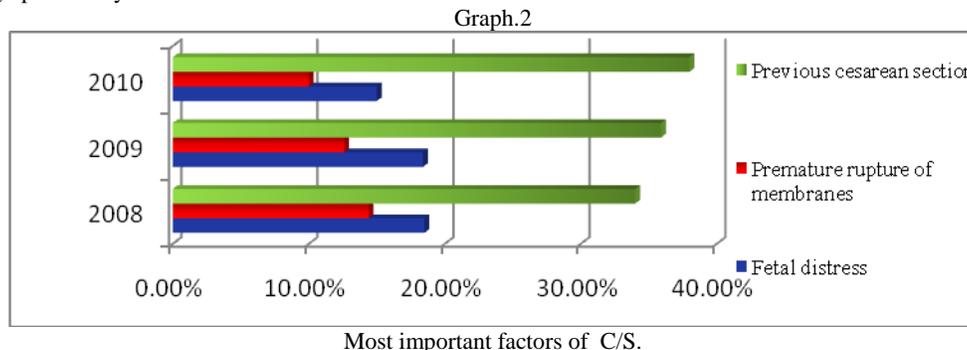
Expresses the % of the contributing factors of cesarean delivery in the years we studied.

*Others = diabetes, serotine pregnancy, premature, fetal abnormalities, cervical cancer, active infection by herpes etc. * N-number of cesarean delivery.

In general the table shows the factors that contributed in the rising trend of cesarean delivery for each year. As we see, we realize that approximately a little decrease for each contributing factors in 2010, except previous cesarean section that is increasing year after year. Interpreting the table we realize that repeat cesarean delivery occupies a main place in the rising incidence of Cesarean

section from year to year. So in 2008 the number of previous cesarean section was 665 (34%) of total cesarean section performance. In 2009 and 2010 the number of previous cesarean section increased from 815 (35.9%) to 897 (38%) in 2010. And p-value is 0.425 But in the same time, premature rupture of membranes and fetal distress also have contributed in the rising trend of cesarean delivery from 2008 to 2010. The mean of fetal distress for this three years we studied is 378 or 17.3% p-value 0.001, while for premature rupture of membranes as a factor contributing in rising trend of cesarean section is 277 or 12.3 % p-value 0.040.

Expressed in graphical way would be:



So, previous cesarean section changes with an average of approximately 36 % in the three years that we studied. While the mean of fetal distress is 17.3%, and premature rupture of membranes varies 12.3%. In same studies which describe the reasons of rising trend of cesarean births in worldwide we realize that most contributing factors are: previous cesarean section, dystocia, transverse presentation of fetus and of course fetal distress[6] . As well as in our study we find some similar factors contributing in cesarean section rate as are: previous cesarean section, fetal distress and premature rupture of membranes.

Conclusion

In our study (for years 2008-2010), we found that the incidence of cesarean delivery is approximately 35.4%. The factors that contributed more in the rising trend of cesarean section are: previous cesarean section, fetal distress, premature rupture of membranes. In some cases we found the voluntary of woman making decision in favor of cesarean section. So it is important to provide detailed information about cesarean delivery before decision of the woman. Discussing for the complications that can accompany it, and high cost it has for maternity. Based on some several studies conducted US, the increasing number of cesarean delivery is due to non-medicinal reasons(women who choose private medical service, the grate age of woman, educated women ect). While in our country the increasing number of cesarean delivery is due to medical reasons but followed very closely also by non-medicinal reasons. So, it is important to select carefully the patients if they really need a caesarean section or not.

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