



## EPIDEMIOLOGIC PROFILE OF PUERPERALS SUBMITTED TO UNNECESSARY CAESAREAN SECTION

### PERFIL EPIDEMIOLÓGICO DE PUÉRPERAS SUBMETIDAS AO PARTO CESÁREO DESNECESSÁRIO

#### PERFIL EPIDEMIOLÓGICO DE LAS MUJERES SOMETIDAS A CESÁREA INNECESARIA

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#### ABSTRACT

**Objective:** to analyze the epidemiological profile of puerperals subjected to unnecessary cesarean section. **Method:** a cross-sectional and observational study with quantitative approach performed from dissertation extract "Epidemiologic profile of puerperals submitted to unnecessary caesarean section". The survey was conducted from August 2009 to June 2010 in nine maternity hospitals in the city of Maceió/AL, Brazil: five public, two philanthropic and two private. The sample accounted for 855 puerperals, calculated considering the number of cesarean sections performed in the city of Maceió/AL in 2008 (15.923), and even the occurrence of loss at 5% for not impairing the study, CI = 95%. The selection criterion and approach of the puerperals was not random, they were addressed in the rooming hospitals on average 12 hours after cesarean section. A form with the following variables was used: identification data, socioeconomic data, data on obstetric and prenatal care received by the pregnant women; also it was used clinical, obstetric and pharmacological data collected from medical records and processed by the software Epi Info version 3.2.2, and transported to a computerized database using the Microsoft Excel program. Data were presented and described in absolute numbers and percentages using figures. Data collection was performed after approval of the research project by the Research Ethics Committee (REC) of the Federal University of Alagoas/UFAL under the protocol no. 007929/2009-57 and signing the consent form. **Results:** it was found that most maternity hospitals performed a quantitative of cesareans higher than that recommended (57.2%) by the World Health Organization and often this choice of parturition is induced by external factors that do not take into account the severity of an unnecessary cesarean section. **Conclusion:** in order to transform this reality, there must be change in the current practices in the country and women need to be informed about the risk of performing unnecessary cesarean parturition. **Descriptors:** cesarean; health care; nursing; woman's health.

#### RESUMO

**Objetivo:** analisar o perfil epidemiológico de puérperas submetidas ao parto cesáreo desnecessário. **Método:** estudo transversal e observacional com abordagem quantitativa, realizado a partir de um extrato da dissertação "Perfil epidemiológico de puérperas submetidas ao parto cesáreo desnecessário". A pesquisa foi realizada de agosto de 2009 a junho de 2010, em nove hospitais-maternidades na cidade de Maceió/AL, Brasil: cinco públicos, dois filantrópicos e dois privados. A amostra foi de 855 puérperas, calculada considerando o número de partos cesáreos realizados no município de Maceió/AL em 2008 (15.923), e ainda a ocorrência de perda em 5% para que o estudo não fosse comprometido, IC=95%. O critério de seleção e abordagem das puérperas não foi aleatório, foram abordadas no alojamento conjunto das unidades hospitalares em média 12 horas pós-parto cesáreo. Foi utilizado um formulário com as seguintes variáveis: dados de identificação, dados socioeconômicos, dados relativos à história obstétrica e à assistência pré-natal recebida pela gestante; também foram utilizados ainda dados clínicos, obstétricos e farmacológicos coletados nos prontuários médicos das mesmas e processados pelo programa Epi Info versão 3.2.2, e transportados para um banco de dados informatizados com a utilização do programa Microsoft Excel. Os mesmos foram apresentados e descritos em números absolutos e percentuais utilizando figuras. A coleta de dados foi realizada após aprovação do projeto de pesquisa pelo Comitê de Ética em Pesquisa (CEP) da Universidade Federal de Alagoas/UFAL, protocolado sob nº. 007929/2009-57, e assinatura do Termo de Consentimento Livre Esclarecido. **Resultados:** constatou-se que a maioria dos hospitais-maternidades realizava um quantitativo de parto cesáreo além do recomendado (57,2%) pela Organização Mundial de Saúde e que muitas vezes esta escolha por via de parto é induzida por fatores externos que não levam em consideração a gravidade de um parto cesáreo desnecessário. **Conclusão:** para que esta realidade seja transformada, é necessário que haja mudança das práticas vigentes no País e que as mulheres sejam informadas acerca do risco de se realizar um parto cesáreo desnecessário. **Descritores:** cesárea; assistência à saúde; enfermagem; saúde da mulher.

#### RESUMEN

**Objetivo:** analizar el perfil epidemiológico de las mujeres sometidas a cesárea innecesaria. **Método:** estudio transversal con enfoque cuantitativo y observacional, realizado a partir de un extrato de la tesis "Perfil epidemiológico de puérperas submetidas ao parto cesáreo desnecessário", presentado al Programa de Postgrado en Enfermería de la Universidad Federal de Alagoas/UFAL. La encuesta se realizó de agosto 2009 a junio de 2010 en nueve hospitales de maternidad en la ciudad de Maceió / AL, Brasil: Cinco públicos, dos filantrópicos y dos privados. La muestra de 855 madres, calculada teniendo en cuenta el número de cesáreas realizadas en la ciudad de Maceió/AL en 2008 (15.923), e incluso la aparición de la pérdida del 5% para el estudio no se ha visto comprometido, IC = 95%. Los criterios de selección y el enfoque de las mujeres no fueron al azar, fueron tratados en las unidades hospitalares de alojamiento conjunto en promedio 12 horas después del parto por cesárea. Se utilizó un formulario con las siguientes variables: datos de identificación, datos socioeconómicos, datos sobre la atención obstétrica y prenatal que reciben las mujeres embarazadas, también se siguen utilizando los datos clínicos, obstétricos y farmacológicos obtenidos de los registros médicos y procesados por el Epi Info software versión 3.2.2, y transportados a una base de datos informatizada con el programa Microsoft Excel. Los mismos fueron presentados y descritos en números absolutos y porcentajes usando figuras. La recolección de datos se llevó a cabo después de la aprobación del proyecto de investigación por el Comité de Ética de Investigación (REC) de la Universidad Federal de Alagoas/UFAL guardada bajo no. 007929/2009-57 y firmar el formulario de consentimiento. **Resultados:** se encontró que la mayoría de los hospitales de maternidad realiza un quantitativo de cesárea mas allá de lo recomendado (57,2%) por la Organización Mundial de la Salud y a menudo esta opción a través de la entrega es inducida por factores externos que no tienen en cuenta la gravedad de una cesárea innecesaria. **Conclusión:** para que esta realidad se transforma, se debe cambiar las prácticas actuales en el país y que las mujeres estén informadas sobre el riesgo de realizar una cesárea innecesaria. **Descritores:** cesárea; atención de salud; la salud de la mujer; la enfermería.

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## INTRODUCTION

The International Conference on Population and Development held in Cairo in 1994, brought to the fore the debate on sexual and reproductive rights, establishing important goals to be achieved by 2015. This initiative enshrined the notion that reproductive health goes beyond the biomedical point of view, i.e. people are seen as subjects and not as objects.<sup>1</sup>

Thus, the country should guarantee women full powers of decision on its reproduction in relation to age and frequency, ensuring them safe and effective support on the prenatal, perinatal and postnatal. Moreover, the local health system should promote not only access, but adequate information on reproductive health, so that being aware and safety for the choices.<sup>2</sup>

In light of gender approaches, which have contributed to the reflection on the exercise of sexual and reproductive rights of women, the economic, educational and political rights, it is part of an important discussion about the alarming situation in relation to an exaggerated increase in the early markup of cesarean section.<sup>2</sup>

In Brazil, the rates of cesarean parturition are quite high, around 35%, and reach even higher values in private services (70 to 90%).<sup>1,2</sup> The reasons for this high prevalence does not seem to relate to changes in obstetric risk but the socioeconomic and cultural factors, especially the controversial phenomenon of "culture of cesarean section".<sup>1</sup>

Although this procedure has direct relation to the cases of maternal and fetal complications, the surgical parturition schedule should be strictly guarded, requiring that the pregnant women understand its indication and the risks of unnecessary cesarean. Therefore, it is important to check whether pregnant women carry choices consciously and safe about the risks of surgical parturition and understand the benefits of natural birth via.<sup>3</sup>

The unnecessary cesarean section is a widespread practice in the health services, particularly in private services. There are many causes result of this practice such as: pregnant sterilization, the little knowledge of women, their unpreparedness compared to normal birth, even the training of doctors and their reaction against the pain of these pregnant may influence the choice, and many believe that women preferem Caesar cesarean birth.<sup>4</sup>

The intention in this study was portraying the reality in a capital of Northeast Brazil in order to contribute to changes in this situation and about the care provided to the mother-son binomial that may suffer unnecessary risks resulting of the cesarean parturition.

In this context, we sought to analyze the epidemiological profile of puerperals subjected to unnecessary cesarean section.

## METHOD

Cross-sectional study, observational, with quantitative approach performed from a dissertation extract on Health Sciences, Federal University of Alagoas (UFAL). The survey was conducted in nine maternity hospitals located in the city of Maceio-AL: five public, two philanthropic and two private.

The period defined for the study was August 2009 to June 2010. The sample was composed of 855 puerperals, calculated considering the number of cesarean sections performed in the city of Maceió/AL in 2008 (15,923), and even the occurrence of loss at 5% for not impairing the study, CI = 95%.

The selection criteria and puerperals approach was not random due to the unavailability of interviewers. The women were approached in hospital rooming units on average 12 hours after cesarean section. Three interviewers have participated in the data collection (one master student and two undergraduate students). Prior to data collection, interviewers were instructed regarding the questionnaire and puerperals approach. Following the training, interviewers were divided into groups and times to allow the interview to as many as puerperals.

A form was used, respecting the items contained in the Resolution No.196/96, the National Health Council, raising the following variables: identification data, socioeconomic data, data on the obstetric and prenatal care received by pregnant women. In addition to the data reported by puerperals, clinical, obstetric and pharmacological data collected from their medical records were also used.

Data were processed using Epi Info version 3.2.2 and transported to a computerized database using the Microsoft Excel program. They were presented and described in absolute numbers and percentages, using figures.

Data collection was performed after approval of the research project by the Ethics Committee in Research (CEP), Federal

University of Alagoas / UFAL under the protocol no. 007929/2009-57 and signing the consent form.

Alagoas, are the only hospitals units in the Unified Health System (SUS) prepared to care for high-risk pregnancies, it is expected that the percentage of puerperals from various municipalities of Alagoas is higher in these units than the others which was observed in this study, since among the cesarean sections occurred in these hospitals (University Hospital and Santa Monica), 48.4% were pregnant women from the interior of the state, while the percentage observed in other hospitals (sum of other hospitals surveyed) was 37.9%.

**RESULTS**

We interviewed 855 puerperals who underwent cesarean sections in public, private and philanthropic hospitals in the city of Maceió-AL. The women had ages ranging from 13 to 44 years, the mean age was 24.8 ± 6.4 years. It was observed that 75% of puerperals were aged up to 29 years.

Regarding education, slightly more than half of the women (51.3%) did not complete elementary school and the proportion of illiterates was 3.0%. Further it was observed that among the surveyed, 42.6% reported being single mothers (Figure 1).

By analyzing the residence location, it was found that most of the women resided in the city of Maceió (64.7%). Since the University Hospital Prof. Alberto Antunes, Federal University of Alagoas, and Parenting School Santa Monica, University of Health Sciences of

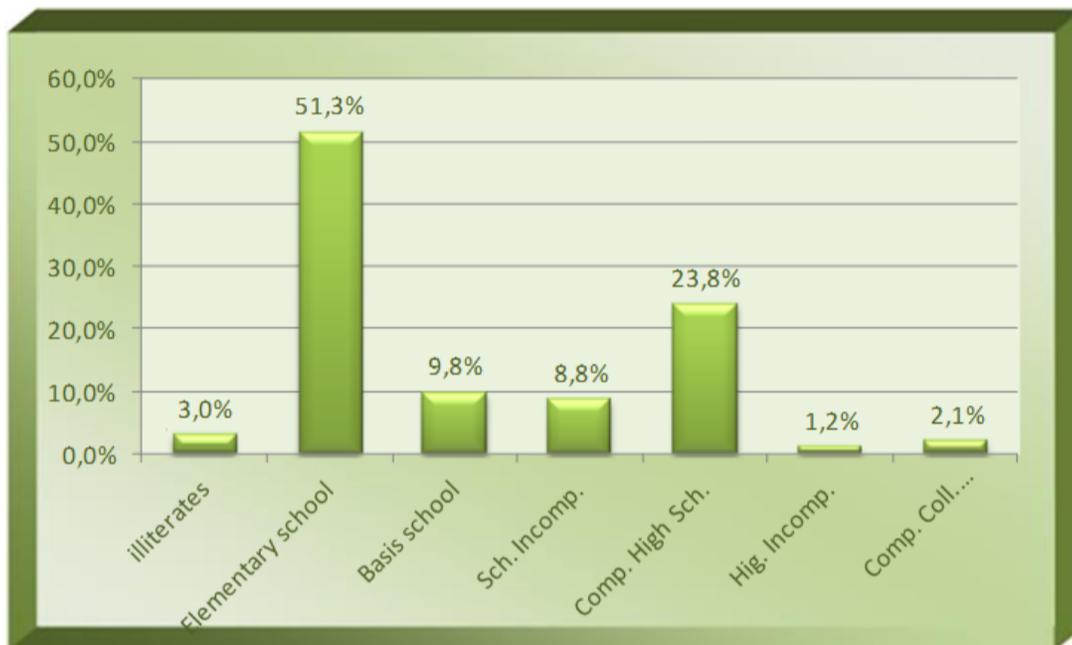


Figure 1. Distribution of puerperals according to the education level. Maceió (AL), Brazil, 2010.

A large proportion of women (60.3%) had no paid work, reporting being housewives. Regarding the housing conditions, 57% indicated having own home, 36.7% did not have sanitary sewer; however, 92.2% had

water in their homes. High proportion of puerperals (88.1%) lived with amonthly income equivalent to one or two minimum wages and the average wage of the surveyed population was 1.5 ± 0.8 minimum wages.



Figure 2. Monthly income reported by puerperals according to the number of minimum wages. Maceió (AL), Brazil, 2010.

With respect to reproductive and obstetric data, it was observed that with regard to reproductive health of women surveyed, only 50.8% of them reported use of contraceptive methods, especially oral contraceptives with 47.4% compliance.

It was also found that 73% of the puerperals never experienced abortion and, when sustained, the number ranged from 01 to 13 abortions. The average number of abortions among puerperals in which they did so, was  $1.4 \pm 1.1$ . Among women who experienced abortion, it was found that in 75% of them, it happened only once. Comparing the average age of women who suffered any abortion ( $27.4 \pm 6.1$  years) with the mean of women who have never suffered it ( $23.8 \pm 6.2$  years), the occurrence of abortion was higher in older women ( $p = 0.0000$ ).

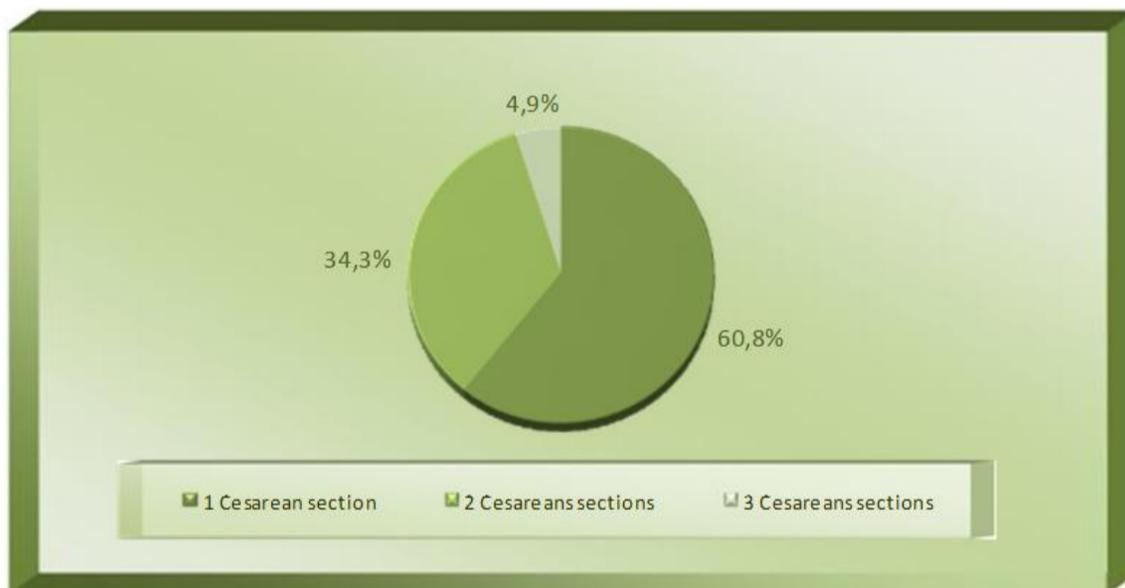
Almost all of the puerperals attended the prenatal appointments (99.2%), which were performed both in the private (30%) and Basic Health Units in the Health Unit System (70%).

Among those who underwent prenatal care, 33.9% attended at least six consultations, which was considered low, since the Ministry of Health recommends a minimum of six visits

for prenatal care. However, the observed average of consultations was  $6.3 \pm 2.4$  visits.

With respect to mean gestational age observed, it was  $38.2 \pm 2.7$  weeks, and 25.0% of pregnant women had gestational ages up to 38 weeks, while 75.0% of them were younger than 40 weeks of gestation. There was variation in the number of pregnancies occurred from only one to 15 pregnancies. However, 75.0% of the puerperals surveyed had up to three pregnancies, and the observed mean of  $2.5 \pm 1.9$ .

When viewed cumulatively the current pregnancy and previous pregnancies, it was found that 71.2% of the women never underwent vaginal parturition, while the sum of puerperals (16.3%) have at some point been subjected to caesarean section. Of those who had been subjected to caesarean section, it was observed that the first parturition was Cesarean section in 60.8%, showing a higher proportion of primigravidae subjected to this type of parturition.



**Figure 4.** Quantitative proportion of cesarean sections in the current and previous pregnancies among puerperals. Maceió (AL), Brazil, 2010.

Among the reasons that led the puerperals to cesarean section, it was realized once again that there are some risk factors, which would justify performing the caesarean section, but when questioned by the researchers, they justified that the parturition had been arranged with their doctors during prenatal, featuring elective cesarean parturition with no apparent reason for its accomplishment.

When approaching these puerperals, they already came with the elective caesarean section scheduled. When seeking records related to the indication in the medical

records, it was found as factors identified for intervention: cervical dystocia (18.8%), cephalopelvic disproportion (13.2%), premature rupture of membranes (13.1%), the iterability I that corresponds to puerperals who underwent previous cesarean section (8.2%), preeclampsia (7.8%) and post-term pregnancy (7.0%). However, these factors were unknown for interviews, apparently being used as justification for the procedure indicated in 31.8% of cases stated that the choice was made in agreement with the doctor.

When we analyzed the proportion of caesarean sections by the hospital, it was

found that 55.2% were performed in private hospitals compared with those public and philanthropic.

## DISCUSSION

A cesarean section is a surgical procedure that when properly indicated plays a fundamental role in modern obstetrics as conductor of morbidity and, perinatal and maternal mortality. This surgical procedure compared to the vaginal parturition is associated with increased morbidity and, maternal and neonatal mortality.<sup>5</sup>

During this study, 71.2% of the women were never subjected to vaginal parturition, whereas 16.3% had undergone cesarean section and 60.8% were primiparous among them, which agrees with the literature when describing that the proportion of women who choose cesarean section is approximately 80%.

When analyzing the factors influencing this decision, the prior cesarean section in someone close to the pregnant directly influences the pregnant decision.<sup>5-6</sup>

This decision is based on the existence of a "cesarean culture" pointing to the process of social legitimization of cesarean section in Brazil, both by doctors and patients, as a type of safe, painless, modern and ideal parturition for any pregnant.<sup>7-8</sup>

A cesarean, once considered an exception procedure indicated in life-threatening situations for the mother and/or fetus, is currently a surgical procedure and mostly programmed, without medical identification of defined risk, whose choice is commonly assigned to the pregnant.<sup>9</sup>

Similarly, results of the research conducted in a private clinic in the city of São Paulo is emphasized, which found that among the factors related to preference for cesarean section in pregnant women without complications a percentage of 42.9% of pregnant women little motivated for normal parturition, concluding that the motivation to perform the cesarean section was associated with influences such as: type and level of satisfaction with the previous parturition and income, demonstrating the importance of a humanized and qualified in parturition assistance.<sup>9</sup>

Therefore, it is believed that the assistance based on humanization is a practice that needs to be encouraged to promote a worthy service to both mother and child with family presence, thus decreasing the rates of cesarean section with no justification.<sup>10</sup>

The birth of a child is undoubtedly one of the main events in a woman's life; it is the event that makes it truly mother. The moment is so important that for many is fascinating and requires study and analysis for understanding and ideal choice for parturition route.<sup>11</sup>

Currently, the cesarean operation has very high frequency in Brazil, fact that had its beginnings in the 1970s justified by the progresses in the techniques of surgery and anesthesia, which allowed greater security to the procedure and the growing number of clinical conditions or circumstances in which cesarean sections seemed to provide greater life security and health to neonate.<sup>12-3</sup>

Using the 15% limit set arbitrarily by the WHO in 1985, but still accepted by the scientific community, it was calculated the excess over 850 000 cesareans per year. This represents an unnecessary risk to women and their babies. From the economic point of view, it is a burden on health systems that work with limited budgets.<sup>12</sup>

Although the epidemic of caesarean section is not new, little action is occurring to reduce their use. Partly because the caesarean section is now culturally accepted as a normal way of parturition.<sup>14</sup>

In the city of Maceió these results were not different: the rate was 57.2% (2009), contrary to the recommendation of the World Health Organization between 10 and 15%.

A cesarean section is a laparotomy which requires a series of clinical, anesthetic and technical cares and also it is associated with complications that should always be considered before its indication. It must therefore, being determined by strictly clinical and obstetric criteria.<sup>15</sup>

Another important aspect is the education level of these mothers, it was found that the proportion of cesarean increases progressively with the number of years in education of women.<sup>16</sup> Among the puerperals studied, 51.3% had not completed elementary school and 3 0% were illiterate, demonstrating that the lower the education the greater the number of cesarean sections performed.

Thus, a study conducted on the issue of desired type of parturition is highlighted, which proved there being no preference for a particular type of parturition related to years of education. Among the 87 pregnant women participating in the study with nine or more years of schooling, 44% had scheduled cesarean section before entering the hospital,

compared with only 15 (47%) of those had at least eight years of schooling.

In addition to this factor, it is worth highlighting the cultural factor also pointed out in a study conducted in the United States, which highlighted the wide disparity in cesarean rates from one state to another and, in some cases, from one hospital to another in the same community, suggests that although the differences are evident in patient populations, the differences also occur in cultural values surrounding birth by cesarean section.<sup>16-17</sup>

In some hospitals, doctors begin to justify the practice of unnecessary cesarean sections based on the principle of the right of women to power and control over their own bodies. According to this interpretation, it is understood the female desire as determinant factor to the type of parturition, and not the power of promotion, legitimating and dissemination of doctors.<sup>18-19,6</sup>

To unravel whether the practice of cesarean among women with more years of education and better social status is associated with their choice or revealed in an inadequate "prescription", considering the scientific evidence regarding the risks for mother and child and the WHO's recommendation more specific studies are needed to affirm this hypothesis.<sup>19</sup>

Moreover, maternal age has been directly related to the increased prevalence of cesarean sections. Studies have reported that women aged above 30 years are more likely to cesarean section than women below 20 years.<sup>11</sup> In this study, 75% of puerperals were aged up to 29 years, a population considered young compared with other populations studied.

It should be added that the creation of a bond, which can be measured through the number of prenatal queries performed, has been verified as a major indicator of caesarean section because the necessary guidelines regarding the parturition choice are not performed in the prenatal.<sup>20</sup> By comparing these data with the study in question was observed that 99.2% of the women had prenatal care and, 33.9% of these had up to five visits, contrary to what the Ministry of Health recommends that guides the implementation of the least six pre-natal consultations.<sup>19-20</sup> Among the 855 puerperals interviewed, 65.1% reported not having received any information about the benefits of vaginal parturition compared to cesarean section.

The influence of gestational age on the risk of cesarean section follows a pattern of lower rates between 36 and 40 weeks of gestation, because most of the indications of elective cesarean, the gestational age is around the 38th week of gestation. The mean gestational age observed in the study was  $38.2 \pm 2.7$  weeks, and 25% of pregnant had gestational age less than 38 weeks, which would not justify the high cesarean section because apparently these women showed no complications in pregnancy and parturition.

Avoiding unnecessary indications of cesarean parturitions in low-risk pregnancies (elective, not ruptured, without labor, without associated maternal complication) should be the practice adopted as it would reduce complications set when this procedure is performed inconsistently.<sup>19</sup>

In this study it was found that the Cervical dystocia (18.8%) and premature rupture of membranes (13.1%) were the most used to justify elective cesarean section, demonstrating that some of the criteria used to perform the cesarean section were not being respected, since most of the women who had this justification in their records, ignored it and only informed that they went to the hospital in combination with their doctors to perform the caesarean section.

The elective caesarean section when previously performed, increases fourfold the likelihood of a new cesarean, regardless of the profile of the obstetrician, as the pregnant goes to credit that this mode of parturition has only benefits, since the villain of normal parturition (the pain) was ceased.<sup>13</sup>

## CONCLUSION

Excess elective cesarean sections, lack of parturition labor in women with previous cesarean section, inadequate indications for cesarean sections and the very inadequate management of parturition result in extremely high rates of cesarean sections as final outcome.

In this study the number of elective cesarean sections is still very high, once the pregnant sees the cesarean section as a way to avoid the parturition pain. Also, medical advice very often induces the women to opt for this type of parturition because they feel it safer and faster. It is necessary that pregnant women are informed about the type of parturition in the prenatal, so that they can decide the best way to give birth. And after that their decision the full support in the

prenatal, perinatal and postnatal are guaranteed.

Moreover, the local health system should promote not only access, but adequate information on reproductive health, so that the women have safety about their choices.

Changes in current care practices is certainly difficult task to reduce so many cesareans, because it is necessary to enter the consensus that the indication of caesarean section is actually used when the pregnant impossibility of normal parturition. Several possible strategies collide in the predominant model of care in maternities. Model that often induces pregnant mothers to opted for caesarean section.

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