NORMAL CHILDBIRTH AND INTERVENTIONS IN A PUBLIC MATERNITY

PARTO NORMAL E INTERVENÇÕES OCORRIDAS EM UMA MATERNIDADE PÚBLICA

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Objective: to analyze the relation between the interventions performed during labor and the duration of the active phase in hospitalized parturients. Method: a documentary study, of the data collection type, with a quantitative approach, performed in a maternity hospital in Pará, Brazil. Data analysis was performed using descriptive statistics. Results: the following interventions were identified: amniotomy (6.1%), oxytocin (64.2%) and episiotomy (16.7%). The relation between the interventions and the duration of the active phase of labor occurred most often in women with less than 5 hours in the active phase. Conclusion: the interventions performed in habitual risk deliveries and in the active phase period with less than 5 hours did not find any theoretical support and referred to the biomedical model.


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Introduction

Care for women during labor and childbirth, in addition to presupposing interaction, should adopt techniques supported by scientific evidence that contribute to women's autonomy and empowerment in the birth scenario, as well as to reduce maternal and perinatal morbidity and mortality.

The Brazilian obstetric model goes through a transition period between the biomedical and the humanized model. According to the biomedical model, labor is seen as a risk event for the mother-fetus binomial. Therefore, it needs the hospital environment with technology for possible interventions \(^1\).

As for the delivery in hospital settings, according to the National Guidelines for Normal Childbirth Assistance \(^2\), this environment is favorable for women to undergo interventions indiscriminately, such as episiotomy, oxytocin use, amniotomy and indication of unnecessary cesarean sections. The Guidelines show that during the childbirth process, the excess of interventions reinforces the biomedical view of childbirth and disregards the emotional, cultural and human aspects. Thus, professional care during labor and birth should consider the singularities of each woman and family beyond the process of giving birth and being born \(^2\).

It is noteworthy that the model of childbirth care with excessive use of interventions such as amniotomy, the use of oxytocin in labor and episiotomy is not supported by international studies \(^3\).

Oxytocin is a hormone with central action in labor, as it is responsible for stimulating uterine contractions. For this reason, its use is associated with a series of other interventions called "cascade of interventions", which is currently questioned and put on the agenda in debates about sexual and reproductive rights, as well as discussions about women's autonomy over their bodies also during delivery \(^4\).

Regarding the performance of amniotomy, the World Health Organization (WHO) \(^5\) defines it as the early rupture of amniotic membranes and clarifies that, although it may shorten the first phase of labor, there is no significant difference in other important clinical results.

Regarding episiotomy, it is a surgical procedure that aims to increase the vaginal opening through a perineal incision during the expulsive period \(^6\). In recent years, several published studies have shown that both episiotomy indications and techniques vary according to context and to the professional team \(^7\).

Thus, it is observed that health professionals need to use humanized obstetric practices because, in many cases, most interventions are unnecessary and end up bringing harm to parturients at habitual risk \(^8\).

From this perspective, this study aims to analyze the relation between the interventions performed during labor and the duration of the active phase in hospitalized parturients.

Method

This is a retrospective documentary study, of the data collection type, with a quantitative approach, conducted in a maternity in the state of Pará, Brazil. The sampling was probabilistic, and the sample size was obtained by the formula...
for calculating proportions in finite populations, based on the average normal childbirths of habitual risk occurred between 2015 and 2016.

358 medical records were included based on the following inclusion criteria: medical records of parturients in the puerperal period who underwent habitual risk delivery. The exclusion criteria were the following: medical records of parturients outside the puerperal period and who had high-risk delivery. The collected data was analyzed using descriptive statistics through absolute and relative numbers. The study was approved by the Research Ethics Committees (RECs), CAAEs 72565317.0.0000.0018 and 72565317.0.3001.5171.

Results

The relation between the interventions performed during labor and the duration of the active phase in parturients shows that, in cases of membrane rupture, about 93.3% occurred spontaneously. The use of oxytocin during labor had a predominance of 64.2% and episiotomy was performed in 13.7% of the cases. Assistance without any of these interventions during labor occurred in 28.2% of the medical records studied. These data are reported in Table 1.

Table 1 – Description of the interventions performed during labor in parturients admitted to a maternity hospital in Belém, Belém, Pará, Brazil – 2015-2016

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>n</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membrane rupture</td>
<td>Spontaneous</td>
<td>334</td>
<td>93.3</td>
</tr>
<tr>
<td></td>
<td>Induced</td>
<td>22</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>No information</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Oxytocin</td>
<td>Yes</td>
<td>230</td>
<td>64.2</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>125</td>
<td>34.9</td>
</tr>
<tr>
<td></td>
<td>No information</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>Yes</td>
<td>60</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>298</td>
<td>83.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>358</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Created by the authors.

To analyze the relation between the interventions performed during labor and the duration of the active phase in parturients, time was delimited in two ways: less than or equal to 5 hours and more than 5 hours. Among the parturients who were in active labor for less than or equal to 5 hours, 6.9% underwent amniotomy; 44.6% the use of oxytocin; and 11.1% episiotomy. As for the parturients who remained in the active phase for more than 5 hours, 1.9% underwent amniotomy; 18.9% oxytocin; and 5.5% episiotomy. Graph 1 allows for the visualization of these results.

Graph 1 – Relation between the active phase of labor and the interventions

Source: Created by the authors.
Discussion

Many times, the need to accelerate labor is demanded by health professionals, as time management and process imposition explain the excessive rate of interventions. In the hospital, this process has a continuity solution by means of interventions that are not based on scientific evidence, and which submit Brazilian women, from all socioeconomic groups at habitual risk, to unnecessary exposure and risks of iatrogenesis at birth (3).

According to the World Health Organization (WHO) recommendations, labor cannot be accelerated until it reaches a cervical dilation of five centimeters. These recommendations aim to prevent iatrogenic maternal and perinatal adverse effects, to minimize unnecessary interventions and to improve the experience of maternal delivery (5). It is noteworthy that the parturients had uterine dilation greater than or equal to four centimeters in the medical records analyzed.

Regarding the interventions on amniotomy, evidence showed that this intervention is not often performed, according to the guidelines of the World Health Organization, which recommends not performing this procedure routinely, with a view to preventing delay in labor (5). However, the results on the performance of amniotomy may influence the number of parturients admitted in labor with ruptured amniotic sac, a criterion that was not part of the study exclusion.

With regard to oxytocin infusion to conduct or accelerate labor, it is one of the most commonly performed procedures in obstetric practice. This intervention is frequently used to increase uterine activity in cases where failures in the evolution of labor occur, in order to enable the progression of vaginal delivery (9).

There was a high percentage of oxytocin use in parturients during labor in this study. Regarding the use of this synthetic medication, the WHO (10) does not recommend to accelerate labor unless the delay has been diagnosed. The WHO (10) also states that when early intervention with oxytocin is used prior to confirmation of delay in labor, there may be an increased risk of uterine hyperstimulation, changes in fetal heart rate and poor maternal and neonatal outcomes.

Regarding episiotomy, it was found that the frequency of performance was lower than in the research conducted by the Fundação Instituto Oswaldo Cruz (FIOCRUZ) (11), which revealed this routine practice in 56% and almost 75% of the primiparous women throughout the country. The practice of episiotomy has been incorporated into the delivery care routine since the beginning of the last century, with the following intentions: to reduce the damage caused by the perineal natural laceration; to prevent urinary and fecal incontinence; and to protect the newborn from the trauma of childbirth. However, no evidence verified the risks and benefits of these practices (3).

Episiotomy is routinely performed by the professionals to accelerate the expulsive period (12). Although the rate of episiotomy performance in this study is lower than that found in other studies, it is still considered high because, in some countries where good delivery care practices are used, this procedure is performed in less than 10% of normal deliveries (13).

Therefore, performing amniotomy, intravenous oxytocin administration and episiotomy, which are common interventions in maternity hospitals in Brazil to reduce the duration of labor and delivery, need to be better evaluated, according to the most recent scientific evidences (14).

Regarding the period of hospitalization in the delivery room, early admission in the latent phase of labor (dilation < 4 cm) should be avoided, as it is a predisposing factor for performing interventions. It is understood that the later the admission, the lower the possibility of interventions to occur due to the period in which the parturient is in the hospital environment (15).

In the research it was evident that parturients in active labor for less than or equal to 5 hours underwent more interventions than those with more than 5 hours in the active phase. Capturing this information from the medical records of parturients classified as pregnant women with habitual risk made it possible to understand that these interventions were unnecessary.
In this regard, the importance is highlighted of the institutions guiding their protocols in the National Guidelines for Normal Childbirth Assistance of the Ministry of Health, and for the professionals to adopt the humanized obstetric model, which guides the reduction of interventions without indication.

The need is also emphasized for the professionals to provide guidance on the indications, risks and benefits of the interventions during labor and childbirth to the parturients from prenatal care to hospitalization, so that they express their decision of agreement or disagreement and authorize or not the performance of the procedures.

These considerations allowed us to understand that the limitations of this study consist in the scarcity of recent scientific evidence with this focus, so that the discussions could be broadened and more comprehensive comparisons and propositions presented.

**Conclusion**

This study made it possible to describe the relation between the interventions performed during labor and childbirth and the duration of the active phase. The obstetric interventions evaluated were amniotomy, episiotomy and the use of intravenous oxytocin. Thus, parturients in the active phase of labor with less than 5 hours had more interventions than those with more than 5 hours.

It was found that the interventions performed did not occur in the active phase of prolonged labor or by indication that characterized a high-risk delivery as, in the inclusion criteria, we considered the selection of medical records of postpartum women who had habitual risk delivery.

In this sense, it was understood that, in the selected sample, the interventions were not justified because, according to the scientific evidence, the shorter the duration of the active phase of labor, the lower the proportion of parturients undergoing interventions.

These considerations make it possible to recommend that the professionals advise pregnant women and their caregivers about the short and long-term risks of the interventions performed without proper indication. Thus, it is expected that the parturients be protagonists of childbirth and have informed their decision-making power, as well as that they collaborate in the process of reducing the number of interventions in favor of a humanized obstetric care.

The effective implementation is recommended of care protocols based on the National Guidelines for Labor and Childbirth Assistance, by the Ministry of Health, as well as permanent education for the multidisciplinary team, aiming at adapting obstetric practices to the humanized obstetric model.

**Collaborations:**

1 – conception, design, analysis and interpretation of data: Elisângela da Silva Ferreira, Luana Rocha Pereira and Ingrid Nicolle Monteiro Barros;

2 – writing of the article and relevant critical review of the intellectual content: Elisângela da Silva Ferreira, Luana Rocha Pereira, Ingrid Nicolle Monteiro Barros, Márcia Simão Carneiro and Lorena Saavedra Siqueira;


**References**

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