51 - EPISIOTOMY IN TEACHING HOSPITAL IN SOUTHERN BRAZIL: PREVALENCE AND ASSOCIATED FACTORS

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INTRODUCION

Currently, episiotomy is one of the most common procedures in the world (CUNNINGHAN et al., 2001). Since the eighteenth century, with the medicalization of childbirth by means of surgical practices, episiotomy has been recommended systematically by DeLee and Pomeroy (NEME, 2000). Since then the procedure has become routine, reaching a prevalence of over 90% in some countries (BORGES, SERRANO e PEREIRA, 2003).

Episiotomy rates vary worldwide from 9.7% in Sweden (Northern Europe) to 96.2% in South America (Ecuador). Lower rates are found in Canada (23.8%) and the USA (32.7%); in many countries such as Brazil (94.2%), South Africa (63.3%) and China (82%), episiotomy rates remained high (GRAHAM et al., 2005).

In the 1970s a naturist movement began to question the routine use of episiotomy. From this, several studies were conducted with the purpose of examining the usefulness and benefits of episiotomy (FERRER, 2010).

The World Health Organization (WHO) (OMS, 1996), and the Ministry of Health (BRASIL, 2006), recommend selective use of episiotomy and consider routine use as harmful and should be discouraged and reported in only 10–15% of the cases.

Several risks to the performance of episiotomy, such as pain, swelling, infection, dyspareunia, and lacerations of the third and fourth grades, have been scientifically proven and documented and negatively affect the body image of women (SANTOS, 2004).

Thus, given the continued routine use of episiotomy, the objective of this study was to determine its prevalence in births that took place in a university hospital and its relation to maternal variables and birth weight.

MÉTODOS

A cross-sectional and retrospective study was conducted in a Teaching Hospital at Northwest Paraná. This is an institution of reference as a pole of the macro region in the northwest of the state in attending to the National Health System (SUS) in cases of high-risk pregnancy. It provides 15 beds for this purpose, in addition to assisting birth, and postpartum and gynecological care to women.

To collect data we used the records of women who underwent vaginal delivery between January 2007 and June 2009. A total number of 681 deliveries were analyzed excluding 11 conducted with forceps and 1 delivered at home.

We studied the following variables: maternal age, gestational age, parity, type of episiotomy, degree of laceration, induction of labor using oxytocin, and birth weight.

Mothers less than 20 years of age were classified as adolescents; between 20 and 34 years of age as adults. The pregnancies were also classified as first pregnancy (singleton pregnancy), second (two pregnancies), and multigravidae (three or more pregnancies). In relation to gestational age, the infants were considered extremely premature infants in pregnancies under 28 weeks; as preterm infants from 28 to36 weeks; from 37 to 40 weeks gestation as term and as post-term with gestational age less than 41 weeks. Delivery was classified as normal delivery without episiotomy; middle right side (cut side) episiotomy, and median episiotomy (cutting the vaginal segment of the wishbone). The cases of laceration was classified as delivery without laceration (without perineal lesion); with laceration of grade I (skin and mucosal damage); grade II (laceration of the perineal muscles and mucosa); and grade III (laceration of the mucosa, muscle and perineal part of the anal sphincter muscles).

Data were tabulated in Microsoft Excel and statistically worked out using the SAS software version 9.1.3 by descriptive analysis and logistic regression between the variables, adopting a significance level of 5%.

The study was approved by the Ethics Committee of the Maringa State University (Report nº 308/2009).

RESULTS

Among the 681 births analyzed, the average age of women was 23.97 years (13–44 ± 6.24).

In about 59.47% (405) of the women, episiotomy was not performed.

Of the 276 (40.73%) women who underwent the procedure, medial-lateral episiotomy was the most utilized (260 to 94.20%), followed by midline episiotomy in 16 (5.80%) cases.

Table 1. Variables related to maternal and childbirth and their distribution with the occurrence of episiotomy, Maringá-Paraná, Brazil, 2009.

		Episiotomy		
Variables		**Yes (n - %)**	**No (n - %)**	**TOTAL**
Laceration	0	247 (89.49)	178(43.95)	425 (62.40)
	I	17(6.15)	161 (39.75)	178 (26.14)
	II	10 (3.62)	61 (15.01)	71 (10.43)
	III	2 (1.08)	5 (1.23)	7 (1.02)
Gestational	Premature	2 (0.72)	22 (5.43)	24 (3.52)
age	Preterm	51 (18.47)	94 (23.20)	145 (21.29)
	Term	197 (71.37)	266 (65.67)	463 (62.40)
	Post-term	26 (9.42)	23 (5.68)	49 (7.19)
Mother's age	Teenager	103 (37.31)	83 (20.49)	186 (27.31)
	Adult	157 (56.89)	285 (70.37)	442 (64.90)
	Senior	16 (5.90)	37 (9.14)	53 (7.78)
Parity	Primigravidae	187 (67.75)	103 (25.43)	290 (42.58)
	Second Pregnancy	63 (22.83)	139 (34.32)	202 (29.66)
	Multigravidae	26 (9.42)	163 (40.25)	189 (27.31)
Use of	No	142 (51.45)	262 (64.69)	404 (59.32)
oxytocin	Yes	134 (48.55)	143 (35.31)	277 (40.67)
TOTAL		**276 (40.53)**	**405 (59.47)**	**681 (100)**

Table 2. Logistic Regression of the deliveries in episiotomy. Maringá, Paraná, Brazil, 2009.

Covariable		Odds Ratio	IC (95%)	P – value
Laceration	0			Reference category
	I	0.05	(0.02 ; 0.09)	<0.0001*
	II	0.07	(0.03 ; 0.15)	<0.0001*
	III	0.09	(0.015 ; 0.64)	0.0150*
Gestational	Term			Reference category
Age	Premature	0.02	(0.005 ; 0.113)	<0.0001*
	Preterm	0.03	(0.196 ; 0.545)	<0.0001*
	Post-term	2.26	(1.005 ; 5.094)	0.0487*
Parity	Multigravidae			Reference category
	Primiparous	16.1	(89.1 ; 28.4)	<0.0001*
	Second pregnancy	2.9	(1.6 ; 5.2)	0.0002*

*Statistically significant at 5%.

The risk involved in episiotomy laceration grade 3 is greater than the risk of tearing in grade 1 and grade 2. Regarding gestational age, it was observed that women who gave birth post-term showed a 2.26 times higher risk of being subjected to the procedure than women who gave birth at term, and the primiparous was 16 times more likely to receive assistance from episiotomy than the multiparous (Table 2).

Because the variable oxytocin was not significant at 5%, it was tested for association / independence, giving a value of p = 0.006 and a dependence relationship was observed between the use of oxytocin and episiotomy.

DISCUSSION

In this study, 40.72% of the deliveries were conducted with episiotomy, an index well above those recommended by WHO (OMS, 1996) and the Ministry of Health (BRASIL, 2006), which recommend this procedure to be used only in 10–15% of the cases.

Research conducted in 105 hospitals in 14 countries in Latin America, including Brazil, found a prevalence of 92.3% of episiotomy, ranging from 69.2% to 96.2% (ALTHABE, BELIZÁN e BERGEL, 2002).

The age of the mothers studied follows the general rates of vaginal delivery in the city because in Maringá, in 2007, 70.13% of the vaginal deliveries were performed in adult women, followed by 23.77% to 6.09% in adolescents and elderly women. Analyzing the last 10 years (1998–2007), 68.89% of the women who had vaginal deliveries were considered adults, 25.42% adolescents and5.68% elderly (BRASIL, 2010).

At the Hospital of the Faculty of Medicine of the Triangulo Mineiro region of Minas Gerais, the average age of women studied was 22.6 years, standard deviation 4.2 (SANTOS, 2004), a value close to 23.97 in this study, indicating that the women treated at the hospital who were studied were of childbearing age, with birth at a young age, a period less prone to risks of injuries and health complications.

In Recife, in a study conducted in a university hospital on 323 patients, 37.8% underwent episiotomy, of median age 22 years, of which 29.4% were adolescents (MELO JUNIOR, LIMA e FREIRE, 2006).

A major reason for routine episiotomy is to protect the perineum during delivery because the cut could prevent the breakdown of muscle fibers, but this statement is controversial as the cut is an injury of second degree (ACOG, 2006).

The best place is right mediolateral episiotomy, although median episiotomy (MS) is suggested for less bleeding and greater respect to the anatomical integrity of the pelvic floor (NEME, 2000). The data found in this research show that a vast majority of episiotomies performed were 97.65% of the right mediolateral episiotomy type against 2.25% of median episiotomy.

According to the WHO, median episiotomy is stitched more easily, with less scarring and is more comfortable for women (OMS, 1996).

In a study conducted at the University Hospital of Sao Paulo in 2000, on 122 vaginal deliveries, 76.2% underwent episiotomy right mediolateral episiotomy. In 10.6% the perineum remained intact; rupture of the first degree occurred in 9%; collapse of the second degree in 4.1%; and with no case of rupture of the third degree. Of these normal deliveries, 41.6% were primigravidae and episiotomy was practiced in most of them (95.2%) (OLIVEIRA, 2005).

In this study, deliveries with episiotomy observed the non-occurrence of lacerations in 89.49% of cases at the expense of 43.95% of women in which the procedure was not performed. Lacerations grade I and II were higher among those not undergoing episiotomy and laceration grade III had a similar percentage between the two groups.

A Cochrane systematic review by Carrolli and Mignini published in 2009 comprising eight studies totaling 5541 women described less severe perineal trauma (RR 0.67), less suturing (RR 0.71), and fewer complications (RR 0.69) in restricted episiotomy. No difference was reported between severe perineal trauma, dyspareunia, urinary incontinence, and pain. They concluded that the restriction of episiotomy is more beneficial compared with policies of routine use (CARROLI e MIGNINI, 2009).

In a study conducted in a University Hospital of Columbia in 2009, of the 149 women studied 81 (54.4%) had perineal lacerations that required stitches. The significant risk factors for the occurrence of lacerations in vaginal delivery without episiotomy were the duration of the active phase of labor greater than 420 minutes (RR 1.45), weight of newborn greater than 3100 grams (RR 1.43), and induction of labor (RR 1.38). Of the lacerations that required stitches, 41.9% were nulliparous. In total, 97.5% were classified as grade 2 laceration; 2.4% as grade 3; and no grade 4 lacerations were recorded (CARROLI e MIGNINI, 2009).

Despite the occurrence of higher rates of laceration in women who did not undergo episiotomy (55.99%) who performed at the expense of episiotomy (10.85%), in 98.71% of the cases where the surgery was not performed there was no tear in 43.95% of them; lacerations of the first and second degrees were observed in 54.76% of the cases being considered easy to repair and healing, without impairing the most serious postpartum (ROBINSON, NORWITZ e COHEN, 2000).

The gestational age observed in this study follows the deliveries in Maringá. In 2007, the term deliveries totaled 88.40% and in the last 10 years the rate was even higher, reaching 90.53% of vaginal deliveries (BRASIL, 2010).

In relation to gestational age, the high number of preterm births (24.8%) is somewhat worrisome and may be explained by the fact that this service be a reference for the high-risk pregnancy predisposing to higher rates of prematurity.

The literature recommends the creation of episiotomy in premature labor but our findings were different, with the rate of premature infants with episiotomy being 19.2% whereas the rate of preterm infants without episiotomy was 28.6%.

There is no evidence that episiotomy prevents fetal obstetrics traumas in preterm infants. Instead, it was reported that there was a stronger association between episiotomy and increased rates of skin abrasions and contusions and there were no demonstrated changes in the conditions of birth such as Apgar score, fetal acidosis, or admission to neonatal intensive care unit

(MACLEOD et al., 2008).

The percentage of episiotomy found in adolescents can be explained by the relationship age / parity, the anatomical immaturity (basin is still not fully defined and greater emotional immaturity, with greater difficulties in dealing with labor) (MELO JUNIOR, LIMA e FREIRE, 2006).

In a university hospital in Recife, adolescents showed a relatively higher risk of undergoing episiotomy (2.02), as well as pregnant women for the first time (PR 3.96). The secundiparous presented a risk 1.70 times greater than the multigravidae for the occurrence of episiotomy (MELO JUNIOR, LIMA e FREIRE, 2006).

One criterion is very common in many studies (MELO JUNIOR, LIMA e FREIRE, 2006; OLIVEIRA e MIQUILINI, 2005), which is the performance of episiotomy in the primiparous and this study made a similar finding since the risk of having a chance of episiotomy in the primiparous was 16 times more than in the multiparous with the frequency of performing episiotomies being 67.75%. However, it can be seen in this study that even in the primiparous, delivery without episiotomy had a percentage of 25.43%, showing its feasibility in the primigravidae.

In Pernambuco, primiparity was the factor that showed a strong association to perform an episiotomy, with an increased risk five times higher (CARVALHO, SOUZA e MORAES FILHO, 2010).

A study conducted between 1995 and 1998 in Latin America (122 hospitals) showed that 9 out of 10 primiparous who underwent vaginal delivery underwent episiotomy. In Brazil the rate has reached 94.2%, with similar data in both private hospitals and public hospitals (ALTHABE, BELIZÁN e BERGEL, 2002).

With the transformation of childbirth, there is an increasing trend in the use of oxytocins during the active phase of the process of expansion, alone or in combination with other procedures such as, for example, artificial rupture of membranes. This procedure has not shown any additional benefit beyond the reduction of the total period of labor. The use of oxytocin should only occur to correct hipossistolia, ataxia, or myometrial contractility functional dystocia, and its use without walking difficulty involves the possibility of side effects such as tachysystole, hypertonia, hiperstimulation uterus, uterine rupture, and fetal distress (BRASIL, 2001).

It was found in this study that the use of oxytocin showed dependency on the performance of episiotomy and can thus claim that its use in the induction of labor may be associated with perineal damage in distensibility and a decrease of its vascularization. Authors suggest the indiscriminate use in order to shorten the time of labor as the reason for its use of non-association with the occurrence of episiotomy (CARVALHO, SOUZA e MORAES FILHO, 2010). This finding suggests the need to develop further studies on the subject.

CONCLUSIONS

We observed a high prevalence of episiotomy in the hospital, as well as the use of oxytocin for acceleration of labor. High rates of episiotomy may be because it was a teaching hospital and episiotomy was also performed for the purpose of learning.

Primigravidae remain the largest victims of episiotomy, the younger being more vulnerable to this procedure because of two criteria.

Studies that assist in determining the need for its implementation, type of episiotomy, and advantages in the delivery process and the mother should be made, seeking excellence in monitoring pregnant women, through comprehensive, humanized, and scientifically substantiated health care mainly as this is a teaching hospital whose responsibility, in addition to assisting the population, comprises teaching and making "new" professionals in the health field.

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EPISIOTOMY IN TEACHING HOSPITAL IN SOUTHERN BRAZIL: PREVALENCE AND ASSOCIATED FACTORS

ABSTRACT

Objective. This study aimed to investigate the incidence of episiotomy conducted in deliveries in a university hospital and its relation to maternal variables. Methods. This is a retrospective cross-sectional study conducted in a Teaching Hospital at Northwest Paraná. The study was conducted from January 2007 to June 2009, in which a total of 681 normal deliveries were analyzed. Results. The mean age was 23.97 years; episiotomy was performed in 276 (40.73%) of them, with middle-side episiotomy the most frequent (94.20%). No laceration occurred in 89.49% of the patients undergoing episiotomy. Most women who underwent the procedure were adults (56.89%). Episiotomy was more prevalent among primigravidae (67.75%). The primiparous were 16 times more likely to receive assistance than the multiparous. Conclusion. The prevalence of episiotomy in the hospital was high, as well as other interventions, such as the use of oxytocin for acceleration of labor. Comprehensive studies that assist in determining the need for episiotomy, type, advantages, and risks in the delivery process for both mother and infant should be carried out to achieve excellence in monitoring pregnant women.

KEYWORDS: Episiotomy. Lacerations. Natural childbirth.

ENSEIGNEMENT L'ÉPISIOTOMIE HÔPITAL AU SUD DU BRÉSIL: PREVALENCE ET FACTEURS ASSOCIES

RESUMÉ

Objectif. Cette etude visait à déterminer la prévalence de la performance de l'épisiotomie dans les livraisons se produisant dans un hôpital universitaire et de sa relation à des variables de maternelle. Méthodes. Il s'agit d'une transversale et rétrospective dans un hôpital universitaire du Nord-Ouest du Paraná. L'étude a été menée de Janvier 2007 to Juin 2009, un total de 681 accouchements normaux analysés. Résultats. L'âge moyen était de 23,97 années; épisiotomie a été réaliséedans 276 (40,73%) d'entre eux, avec épisiotomie médio-latérale était plus fréquente (94,20%). Pas de lacération a éte trouvé dans de 89,49% des patients subissant une épisiotomie. La plupart des femmes qui ont subi la procédure étaient des adultes (56,89%). L'épisiotomie est plus répandue dans les primipares (67,75%). Les primipares étaient 16 fois plus de chances de recevoir de l'episiotomie ai de que les multipares. Conclusion. La prévalence de l'épisiotomie dans l'hôpital a été élevé, ainsi que d'autres interventions, telles que l'utilisation de l'ocytocine pour accélérer le travail. Les études pour aider à déterminer la nécessité d'effectuer une épisiotomie, le type, les avantages et les risques dans le processus de livraison normale pour la mère et du nouveau-né doit être effectué, en cherchant l'excellence dans la surveillance des femmes enceintes, grâce à une prise en charge intégrale et humanisée.

MOTS-CLÉS: L'épisiotomie. Lacération. La livraison normale.

EPISIOTOMÍA HOSPITAL DE ENSEÑANZA DEL SUR DE BRASIL: PREVALENCIA Y FACTORES ASOCIADOS

RESUMEN

Objetivo. Este estudio tuvo como objetivo determinar la prevalencia de la realización de episiotomía en partos que ocurren en un hospital universitario y su relación con variables maternas. Métodos. Se trata de un corte transversal y retrospectivo en un hospital universitario del noroeste de Paraná. El estudio se realizó entre enero de 2007 junio de 2009, un total de 681 partos normales analizados. Resultados. La edad media fue de 23,97 años, la episiotomía se realizó en 276 (40.73%) de ellos, con la episiotomía mediolateral fue más frecuente (94,20%). No se produjo laceración en el 89,49% de los pacientes sometidos a la episiotomía. La mayoría de las mujeres que se sometieron al procedimiento fueron adultos (56,89%). La episiotomía es más frecuente en primigestas (67,75%).Mujeres primíparas eran 16 veces más probabilidades de recibir episiotomía de multíparas. Conclusion. La prevalencia de la episiotomía en el hospital fue alta, así como otras intervenciones, tales como el uso de oxitocina para la aceleración del trabajo del parto. Los estudios para ayudar a determinar la necesidad de realizar episiotomía, el tipo, las ventajas y los riesgos en el proceso de entrega tanto para la madre y del recién nacido se debe realizar, buscando la excelencia en el control de las mujeres embarazadas, a través de una atención integral y humanizada.

PALABRAS CLAVE: episiotomía. Laceración. Parto normal.

EPISIOTOMIA EM HOSPITAL ENSINO NO SUL DO BRASIL: PREVALÊNCIA E FATORES ASSOCIADOS

RESUMO

Objetivo. Este estudo objetivou verificar a prevalência da realização da episiotomia nos partos ocorridos em um hospital universitário e sua relação com variáveis maternas. Métodos. Trata-se de um estudo transversal e retrospectivo, realizado em um Hospital Ensino do Noroeste do Paraná. O estudo foi realizado no período de janeiro de 2007 a junho de 2009, totalizando 681 partos normais analisados. Resultados. A média de idade foi 23.97 anos; a episiotomia foi realizada em 276 (40.73%) delas, sendo a episiotomia mediolateral a mais freqüente (94.20%). Não ocorreu laceração em 89.49% das pacientes submetidas a episiotomia. A maior parte das mulheres em que o procedimento foi realizado eram adultas (56.89%). A episiotomia foi mais prevalente nas primigestas (67.75%). As primíparas apresentaram 16 vezes mais chance de receber a intervenção do que as multíparas. Conclusão. A prevalência de episiotomia neste hospital foi elevada, assim como outras intervenções, como o uso da ocitocina para o aceleramento do trabalho de parto. Estudos que auxiliem na determinação da necessidade de realização da episiotomia, tipo, vantagens e riscos no processo do parto para a mãe e o RN devem ser realizados, buscando a excelência no acompanhamento das parturientes, por meio de uma assistência integral e humanizada.

PALAVRAS-CHAVE: Episiotomia. Laceração. Parto normal