Episiotomies During Deliveries of Singletons in Cephalic Presentation: The Incidence can be Reduced

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Abstract

Objectives To verify if episiotomy rate could be reduced without compromising materno-fetal well-being.

Materials and Methods This retrospective study was conducted between January 1 and December 31, 2010 in the maternity unit of the University Teaching Hospital Yaoundé (Cameroon). All cases of singletons in cephalic presentation with episiotomies done or not done during deliveries were recruited. Data were analyzed by means of SPSS 12.0. The Fisher's exact test was used for comparison. The level of significance was 0.05.

Results We performed 163 episiotomies (9.6 %). Main indications were rigid perineum, fetal weight $\geq 3,500$ g, prolonged second stage of labor, and instrumental deliveries; 82.2 % of patients were nullipara. Mean 5th minute Apgar score was 9.2. Short term maternal complications were mainly perineal pain. Among fetuses delivered with or without episiotomy, no case of early neonatal death was recorded.

Conclusions The use of episiotomy can be reduced without increasing maternal and fetal morbidities.

Keywords Singletons in cephalic presentation · Episiotomy · Indications

Introduction

Episiotomy is the surgical enlargement of the vaginal orifice by an incision of the perineum during the second stage of labor just before the delivery of the fetus. During the 1970s, almost all women in developed countries having their first delivery had episiotomies [1, 2]. Episiotomies continue to be frequently used in obstetrics despite little scientific support for its routine use [3]. Episiotomies carry long term risks of superficial dyspareunia and perineal pain [4, 5]. The rate of episiotomy is decreasing in the USA [6]. When compared to spontaneous 2nd degree perineal tears, episiotomies carry more perineal pain and superficial dyspareunia [4], although episiotomy is easier to repair and can prevent 3rd and 4th degree perineal tears if it is well done [1]. The aims of this study were to outline the indications of episiotomy done in our service, to evaluate the well-being of the new born and the mother after delivery, and to verify if episiotomy rate can be reduced in singleton cephalic deliveries without compromising the fetal and maternal well-being.

Material and Methods

This retrospective study was conducted from January 1 to December 31, 2010 in the maternity unit of the University Teaching Hospital Yaoundé (Cameroon). All cases of singleton cephalic deliveries with a live fetus and where episiotomies were done were recruited. For each case selected, the following data were recorded: maternal age and parity,

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Table 1 Distribution of episiotomies by parity

Parity	Number	%
0	134	82.2
1	20	12.3
2	1	0.6
3	8	4.9
≥4	0	0.0
Total	163	100

gestational age, the rigidity of the perineum (assessed by the birth attendant), fetal weight, Apgar score at 1st and 5th minutes, and the level of the birth attendant.

The delivery room records were screened to have the total number of singleton cephalic deliveries during the period of study. This study was approved by the institutional ethics committee. Data were analysed by means of SPSS 12.0. The Fisher's exact test was used for comparison. The level of significance was 0.05.

Results

A total of 1,695 singleton cephalic vaginal deliveries were conducted with 163 episiotomies done, all medio-lateral (9.6 %). In parturients in whom episiotomies were not done, we had 176 first degree perineal tears (10.4 %), 51 s degree perineal tears (3.0 %), and 3 third degree perineal tears (0.2 %).

The ages of the patients who had episiotomies ranged between 15 and 40 years with a mean of 24.4 ± 4.6 years. Mean parity before delivery was 0.3 ± 0.8 and ranged between 0 and 6 with 82.2 % of patients being nullipara (Table 1).

Mean gestational age in patients who had episiotomies was 39.6 ± 1.3 weeks and ranged between 35 and 43 weeks, and fetal weights ranged between 2,185 and 4,795 g with a mean of $3,348 \pm 418$ g; while Apgar score ranged between 5 and 10 at 1st minute with a mean of 7.7 ± 1.8 , and between 6 and 10 at 5th minute with a mean of 9.2 ± 1.8 .

Main indications for episiotomies were rigid perineum and fetal weight of 3,500 g or above (Table 2).

Episiotomies were frequently done by obstetricians and residents (47/304) than by trained midwives (116/1391) ($P < 0.0004$, OR 2.0, 95 % CI 1.4, 2.7).

Short term maternal complication of episiotomy was perineal pain. No early neonatal death was recorded.

Discussion

The rate of episiotomy in our study (9.6 %) is low compared to that noticed in other studies which varied between

Table 2 Indications for episiotomy

Indications	Number	%
Rigid perineum or imminent perineal tear	45	27.6
Large weight fetus ($\geq 3,500$ g)	44	27.0
Prolonged second stage of labor	21	12.9
Instrumental deliveries	20	12.2
Nulliparity ^a	13	08.0
Occipito-posterior position	9	05.5
Acute fetal distress	7	04.3
Prematurity	4	02.4
Total	163	100

^a With poor maternal compliance when pushing

35.6 and 76.2 % [3, 7, 8]. In our service, fetal indications for medio-lateral episiotomies are cases of excessive fetal weight, acute fetal distress to deliver the fetus rapidly, occipito-posterior position, instrumental deliveries, and occasionally in cases of prematurity of less than 36 weeks. Maternal indications are rigid perineum, prolonged second stage of labor, imminent perineal tear, and occasionally in nullipara with poor maternal compliance when pushing (Table 2). Nullipara who do not present any of these indications are delivered without episiotomy. Medio-lateral episiotomies are preferred to midline episiotomies to prevent 3rd and 4th degree perineal tears.

We also had 51 cases of second degree perineal tear (3.0 %) and 3 cases of 3rd degree perineal tear (0.2 %). A total of 217 women (12.8 %) had either episiotomy or 2nd or 3rd degree perineal tears, while 176 (10.4 %) had a 1st degree perineal tear. This means that if we had decided to realize episiotomy to all women who have had 2nd and 3rd degree perineal tears, our episiotomy rate would have been 12.8 %. We can therefore think that in our environment, the rate of episiotomy in singleton cephalic deliveries can be reduced to less than 13 %. It is important to reduce the frequency of episiotomy since it carries short term and, especially, long term complications such as superficial dyspareunia and perineal pain [4, 5] which are more severe than in cases of second degree perineal tear [4]. It may be useful to train the birth attendant to protect the perineum during delivery and to repair an eventual 2nd degree perineal tear than to perform routine episiotomy because the latter is easier to repair.

When parity was taken into consideration, episiotomy was common among nullipara (82.2 %). This was noticed in other studies with a rate of 88–90 % [3, 7]. The mean fetal birth weight among women who had episiotomy was less than 3,500 g. Only 65 fetuses (39.8 %) weighed 3,500 g or more showing that the indications depended not only on fetal weight, but also on perineal elasticity and other factors (Table 2).

Episiotomies were more frequently done by obstetricians and residents than by trained nurses. This is due to the fact that most difficult deliveries, like instrumental deliveries, were done by obstetricians and residents.

Mean Apgar scores at 5th minute was very good and we had no early neonatal death among the 1,695 total deliveries conducted (with or without episiotomies). Short term maternal complication was perineal pain that was managed with analgesics.

The fact that 176 women (10.4 %) had only 1st degree perineal tear shows that perineal protection should be taught and encouraged. Dannecker et al. [9] showed that avoiding episiotomy when tears seemed to be imminent increased the number of women with intact perineum and the number with only minor perineal trauma with fewer cases of perineal pain and superficial dyspareunia in women who had 1st and 2nd degree perineal tears than in those who had episiotomy [4, 9].

Conclusion

This study has shown that it is possible to reduce the use of episiotomy in singleton cephalic deliveries without compromising the fetal and maternal well-being. Systematic use of episiotomy should be avoided. Episiotomy (medio-lateral) should be conducted in cases of a rigid perineum, imminent perineal tear, prolonged second stage of labor, and instrumental deliveries, especially if certain fetal

conditions like big fetuses, fetal head malposition, acute fetal distress, and prematurity are present.

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