

Restriction of Episiotomy: Obstetrical Indications and Perineal Prognosis in Two Maternity Wards in Brazzaville (Republic of Congo)

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Abstract: *Objective:* In December 2018, new recommendations from the National College of French Obstetrician Gynaecologists restricted obstetric indications for episiotomy to only instrumental delivery, to avoid the occurrence of obstetric lesions of the anus sphincter. In our maternity wards, episiotomy is still performed liberally in the face of high-risk perineal situations, without significant reduction in perineal tears. This is how the present study set itself the objective of evaluating the impact of a restrictive practice of episiotomy on the perineum. *Methods:* Before-after non-experimental evaluative study, conducted from March 1 to August 30, 2019, in two maternity hospitals in Brazzaville, comparing according to a 1/1 ratio, after matching age and parity, 300 parturient with a high situation perineal risk of episiotomy having benefited from a procedure restricting episiotomy to 300 others who did not benefit. The two groups were evaluated: the percentage of episiotomy, the percentage, and the degree of perineal tears. The effect of the restriction was assessed by calculations of the difference in absolute risk (DR), reduction in relative risk (RRR) and the number of subjects required to treat (NST). *Results:* Parturient with high perineal risk had a median age of 23 years (18-28) and were primiparous (0-1.5). The high perineal risk situations were dominated in the two groups by the maternal indications concerning parity (nulliparity: 40% vs 63%) and the perineum (scar: 51% vs 60%); followed by macrosomia (25% vs 38%) and prematurity (25% vs 16%) as fetal indications. The episiotomy was performed in all cases of instrumental forceps extraction (1.3% vs 5%). The restrictive practice of episiotomy was effective in 96% of cases with 69.8% of intact perineum vs 19%. It had a protective effect on the perineum, making it possible to avoid the occurrence of 82 episiotomies (DR=-82% [-93, -70]; RRR=95%) and 50 perineal tears (DR=-50% [-66, -34]; RRR=63%) for 100 parturient. To avoid an episiotomy and a perineal tear, the restriction procedure must be applied to an average of 1.2 parturient (NST=-1.2) and two parturient (NST=-2), respectively. *Conclusion:* It is entirely possible to opt for a restrictive practice of episiotomy in our maternities by rigorously and meticulously evaluating the perineal risks and by respecting the procedures for protecting the perineum during childbirth.

Keywords: Episiotomy, Restriction, Impact, Childbirth, Brazzaville

1. Introduction

Episiotomy is an operation which consists in cutting the perineum starting from the posterior commissure of the vulva, involving the skin, the vaginal mucosa, the superficial

muscles of the perineum and the entire pubo-rectal bundle [1]. The traditional obstetric education "magister dixit" saw in it an act preventive of maternal and perinatal morbidity par excellence. The advent of evidence-based medicine at the end of the last century is expected to have had a major impact on

medical practices including episiotomy [2]. Over the past two decades, it has become the most common surgical procedure performed in delivery rooms [2]. Several studies have, however, called into question his liberal practice, since it neither protects from serious perineal tears nor from its sequelae on continence [3-5], hence the 2005 recommendations of the National College of Obstetric Gynecology of France (CNGOF) promoting a restrictive practice of episiotomy [4]. In December 2018, the new CNGOF recommendations limited obstetric indications for episiotomy to the only case of instrumental delivery, to avoid the occurrence of obstetrical lesions of the anus sphincter (OLAS) [6]. In our maternity wards, episiotomy is still performed liberally in the face of high-risk perineal situations, without significant reduction in perineal tears. This is how the present study set itself the objective of evaluating the impact of a restrictive practice of episiotomy on the perineum in two maternity hospitals in Brazzaville.

2. Population and Method

This was a non-experimental evaluative study of the before-after type, conducted from March 1 to August 30, 2019, in two maternity hospitals in Brazzaville (University Hospital Centre of Brazzaville and the Talangaï Reference Hospital), comparing 600 parturient with a high perineal risk of episiotomy, divided according to a 1/1 ratio, in two groups matched on age and parity:

Group 1 (Intervention): restrictive practice of episiotomy.

Group 2 (Control): liberal practice of episiotomy.

Consenting parturient, having a theoretical or ultrasound term of at least 28 weeks of amenorrhea or an estimated fetal weight greater than or equal to 1000 g, were included. Parturient admitted to the expulsion phase birth block were not considered.

2.1. Episiotomy Restriction Procedure

After bladder survey and explanation of the stages of delivery, the expulsion phase restriction procedure consisted of:

Encouraging the parturient to push in the most effective way during uterine contractions and to rest outside of them.

In the perineal massage by spreading the labia minora by circular movements.

Supporting the posterior perineum by pushing it back and controlled release of the fetal presentation.

Systematic release of the anterior shoulder to reduce the biacromial diameter to acromio-sternal diameter.

The episiotomy decision was taken before the whitening and / or thinning of the perineum, and systematically in the event of instrumental extraction. It was a medio-lateral episiotomy.

2.2. Variables

It was analysed for each parturient: age, parity, term of pregnancy, fetal presentation, situation with high perineal risk or prior indication of episiotomy, and condition of the perineum.

2.3. Judgment Criteria

The two groups were evaluated: the percentage of episiotomy, the percentage and the degree of perineal tears.

2.4. Statistical Analysis

Stata 13 software was used for statistical analysis. Our results were represented as a proportion for the qualitative variables. The quantitative variables were expressed in median and quartiles (q1-q3). Pearson's Chi-square test was used to compare the percentages. The relative risk (RR) and its 95% confidence interval were used to estimate the association between two variables. The p-value of the probability was considered significant for a value less than 0.05%. The effect of the restriction was assessed by the absolute risk difference (DR) calculations and its 95% confidence interval not including 0; and relative risk reduction (RRR). The NNT index (Number of subjects Necessary to Treat) made it possible to determine the average number of parturient women who should benefit from the restriction to avoid perineal injury.

3. Results

Parturient with high perineal risk were 23 years old (18-28) and primiparous (0-1.5).

The high perineal risk situations, as shown in Figure 1, were maternal, fetal and instrumental. They were associated in 75% and 80% of the cases, respectively in the "Intervention" and "Control" groups.

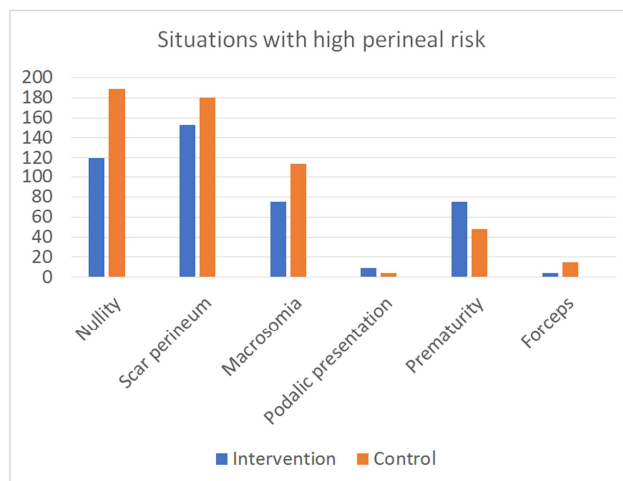


Figure 1. Situations with high perineal risk.

The restrictive practice of episiotomy was effective in 96% of cases with 69.8% of intact perineum vs 19% in the "Control" group.

Compared to parturient who were the subject of a liberal practice of episiotomy, the practice of the episiotomy procedure during the study period, had a protective effect on the perineum, making it possible to avoid the occurrence of 82 episiotomies and 50 perineal tears for 100 parturient.

Likewise, to avoid an episiotomy and a perineal tear, the

restriction procedure must be applied to an average of 1.2 parturient (i.e. to all parturient) and two parturient, respectively.

Table 1 provides information on the effect of the episiotomy restriction procedure in parturient.

Table 1. Effect of the restriction procedure in parturient.

	Intervention		Control		RR [CI (95%)]	p	DR (%) [CI (95%)]	RRR (%)	NNT
	n	%	n	%					
Episiotomy	12/300	4	258/300	86	0.05 [0.03, 0.07]	<0.00001	- 82 [-93, -70]	95	-1,2
Perineal tears ⁽¹⁾	87/288	30.2	34/42	81	0.37	<0.0001	-50 [-66, -34]	63	-2
1 st degree	84	97	3	10					
2 ^d degree	3	3	9	25					
3 ^d degree	-	-	15	45					
4 th degree	-	-	7	20					

⁽¹⁾ Classification of obstetric perineal tears [7].

4. Discussion

The heterogeneity of the medical teams, the limited effect of the dissemination of the Recommendations for Clinical Practice (RCP) on the restriction of episiotomy or even the absence of a real decline in the practice of restriction and the obstetrical experiences of some and on the other hand, contributed on the one hand to the realization by some of the episiotomy for fear of a possible perineal tear. On the other hand, the concern for absolute compliance with the recommendations on restriction by others, constituted real missed opportunities for episiotomy exposing to tears.

Therefore, it seemed reasonable to us to cross the parturient individually to minimize the possible selection bias and to ensure compliance with the different stages of the restriction procedure.

During the study period, the restrictive practice of episiotomy was effective in 96% of cases. The risk of an episiotomy in the control group was reduced by 95%. Prior to the CNGOF RPCs, the existence of such a practice in African maternity hospitals has not been reported in the literature. However, in France, a decrease in the episiotomy rate before the publication of the RPC between 1994 and 2005 is reported by 56% and 41.3% respectively [8]. The same trend has been observed in Anglo-Saxon countries and across the Atlantic [9, 10]. After the RPC 2005, this decrease continued gradually until reaching figures below the threshold of 30% recommended by the CNGOF, as evidenced by numerous studies in which this rate varies between 1.3% and 19, 34% [6, 11, 5]. Although this threshold has been largely exceeded, according to some authors, this still remains poor with regard to the conclusions of the Evidence Based Medicine according to which the practice of episiotomy should be avoided [16]. This reveals the difficulties that there may be in applying such recommendations.

However, in our preliminary study, the practice of episiotomy could be controlled. Although our limits, this evaluative study, the start of an internal audit, helps us to analyse the situation in our service over the long term, to identify the difficulties so that we can continue to act in a continuous approach to improving care.

In addition, certain authors emphasize the limited effect of

the dissemination of RCP on the change in medical practices, this fact being corroborated by several publications in the literature [17]. In fact, it is more difficult to modify clinical practices because obstetric beliefs remain anchored in the minds of medical personnel for a long time [18]. The RCP 2005 mentions that performing an episiotomy should in no case be systematic but should be based on the clinical expertise of the person responsible for the delivery. This notion remains subjective and dependent on the operator's experience and clinical sense. Changes in practices can be particularly difficult for practitioners trained in the days when episiotomy was thought to be an important step in performing a vaginal birth [19]. This is illustrated by the results of an English study in 2007 in which 66% of obstetricians still believed that episiotomy reduced the risk of severe perineal tears [20], which could justify the persistent gap between scientific results and the convictions of practitioners.

The practice of episiotomy has been noted more in primiparous women, as reported by many authors [6, 11, 12]. Carrying out an episiotomy in a nulliparous or primiparous population would be linked to the type of perineum that is often rigid and to the inexperience of the parturient who may require re-education and pre-partial massage therapy. Likewise Reinbold reports an inequality in the episiotomy's rate as a function of parity and type of delivery, passing from an almost systematic episiotomy in 2004 to an episiotomy in a third of the cases in 2009 in primiparous women and in the case of instrumental extraction. [14].

Also, in some studies, the role played by the experience of the practitioner and the midwife who followed the parturient during pregnancy, significantly impacted the rate of episiotomy varying between 2% and 43% depending on the practitioner [21].

Although restricted to instrumental extractions by the CNGOF in 2018 [6]; The practice of episiotomy is still linked in African maternity hospitals with limited resources, with situations of high perineal risk. These were of interest to both the mother (perineum) and the fetus (presentation, morphology, biometrics) and the exponent was the perineum with a risk of tears.

However, the review of the Western and North African literature reports a similar risk of tears due to perineal lesions in parturient who may or may not have had episiotomy for

situations with high perineal risk [22, 4]. As a result, the episiotomy would no longer be beneficial for the parturient but on the contrary an act that could be harmful given its complications.

This is how episiotomy was performed for forceps deliveries in our series. In addition, despite the recommendations of the CNGOF on the restriction of episiotomies, it should be noted that there is heterogeneity in maternity hospitals in France, some still remaining high in situations with high perineal risk [5, 25], affirming the difficulties regarding to the optimization of such a practice.

Thus, the practice of such a policy, sometimes ethical in nature, depends on the different actors present during childbirth and the preparation of the pregnant woman for childbirth.

The practice of episiotomy restriction in 300 parturient in our series did not cause complete or complicated perineal tears. This is in line with the observations made in the French series, which do not reveal the risk of significant tears in the event of non-completion of the episiotomy. However, in more than a quarter of cases, 1st degree (97%) and 2nd degree (3%) perineal tears were noted.

Indeed, not performing the episiotomy would not expose more parturient to complete and complicated perineal tears but to incomplete tears with or without functional consequences [6, 11, 12, 14]. Similarly, considering that an episiotomy is at least the equivalent of a 2nd degree perineal tear [13], the restrictive practice of episiotomy in a group with high perineal risk enabled 96% of women to get out of our maternities with a less significant lesion with a better functional prognosis than that linked to episiotomy, testify to this by the 69.7% of deliveries with intact perineum.

5. Conclusion

Although there are inter and intra-individual difficulties regarding changes in paradigms and obstetrical practices, this preliminary study on the restriction of episiotomy made it possible to control the practice of episiotomy without increasing the risk of serious perineal damage. However, to modify practices, a subsequent clinical audit is important for the awareness of practitioners. The appropriation of the Recommendations for Clinical Practice by trained and knowledgeable staff should make it possible to improve the behaviour to be followed without increasing the morbidity linked to the acts. It is quite possible to opt for a restrictive policy of episiotomy in our maternities without increasing serious perineal tears and therefore reducing iatrogenic morbidity without increasing spontaneous. This requires a rigorous and meticulous assessment of perineal risks and compliance with perineal protection procedures during childbirth.

Conflicts of Interest

All the authors do not have any possible conflicts of interest.

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