Episiotomy - The Destructive Tradition -

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Abstract

Background: *The time-honoured Episiotomy fails to fulfil the expectations for which it was introduced. It does not decrease the perineal damage, does not prevent prolapse but increases morbidity and blood loss. When performed, however, it should be repaired in an optimal way.*
Objective: *The short-term outcome of episiorrhaphies, when leaving the vaginal wall unsutured and closing the deep layers and skin continuously.*
Method: *In a randomized prospective pilot study 43 primiparae sutured with the traditional three layers closure were compared to 46 primiparae sutured with a modified - two layers closure.*
Major parameters included the presence of hematomas, local redness and swelling, use of pain killers, and distortion of anatomy after 6-8 weeks.
Statistical analysis used t-test in SPSS for Windows.
Results: *There was no significant difference between both groups concerning hematomas, local redness and swelling in the first 24 and 48 hours. The need for painkillers was similar in both groups after 24 hours and there was a non-significant trend toward less need for painkillers after 48 hours. Among the women who were examined after 6 weeks there was no significant difference concerning local discomfort and pain, but there was a significantly less distortion of anatomy in the two layers group.*
Conclusions: *Episiotomies should be performed only when absolutely indicated. Compared to the three layers episiorrhaphy method, the modified two-layer method, proved to reduce pain and resulted in restitution of the anatomy. Whether in long term the two layers Episiorrhaphy will prevent inclusion cysts and dyspareunia should be a subject for future long-term prospective randomized studies.*
Keywords: *Episiotomy, Episiorrhaphy, two layers repair*

Introduction

Episiotomy is one of the most frequent procedures in obstetrics and gynaecology. In 2002, 780,000 Episiotomies were done in the United States compared to 669,000 hysterectomies[1]. Nevertheless, maybe because considered as a minor basic procedure, the Episiotomy despite its high rate and possible destructive influence on future life quality is mentioned in PubMed (www.pubmed.com) 1,940 times (episiorrhaphy only 15 times) compared to 29,345 quotations for the less frequent hysterectomy (June 2009).

The evolution over millions of years created the process of the physiological delivery, which is normally the rule except in the high-risk cases. A normal delivery starts when a high level of steroids is excreted from the fetal suprarenal glands, due to the maturation of his hypothalamus and hypophysis, sending a signal to the mother to start the labour, next to the placental maturation[2,3,4].

For many generations the delivery was a family event, even when attended by the midwife. In the last decades however, experts have emerged who claim improving the physiology of natural birth[5,6]. Some of them are referring to their own methods as active or aggressive[7,8].

The Episiotomy was first reported by Ould in 1741[9]. It took about 100 years until this procedure became established[10] Today it belongs to the repertoire of every obstetrical unit[10], although its benefits and necessity are still controversial[11].

Episiorrhaphy, although considered a common and simple procedure, performed frequently as a routine in first

deliveries[12,13], is known today to cause various complications such as epidermal inclusion cysts[14] or anal sphincter injuries[15].

In many hospitals Episiotomies are still nearly routine procedures. In 1983 the Episiotomy rate at the Jefferson Medical College in Philadelphia was 69.6%. This rate decreased however to 19.4% in 2000 after an increased association between severe lacerations as well as other complications related to Episiotomy was shown. Due to this trend, the rate of Episiotomies in the USA decreased by half between 1981 and 1997[16].

It has been shown that women delivered by private physicians still have a 7-fold increased rate of Episiotomy compared to public patients[17]. Women delivering through a private insurance program had a 62% chance to end birth with Episiotomy compared to 43% of women who were delivered through a government insurance (P<.001)[16].

The extended usage of Episiotomy is not limited only to developed countries. It infiltrated also into countries with limited resources. In the rural Zimbabwe the overall Episiotomy rate is 27%; 54% in nulliparous and 6% in multiparous[18].

It seems that the expectations of obstetricians promoting routine Episiotomies were not fulfilled. Its performance does not decrease the perineal damage nor prevent the development of pelvic relaxation, but increases the risk of lacerations as well as blood loss and maternal mobility causing pain and future dyspareunia. The reasoning for performing a Episiotomy as a protective measurement to the newborn by shortening the second stage of labor, improving Apgar scores and preventing asphyxia have never been proven[19].

Anal sphincter laceration rates with spontaneous vaginal delivery have recently decreased, reflecting the decreased usage of Episiotomy[20], and the perineal pain resulting from Episiotomies performed to prevent lacerations with no apparent benefit for the mother or the newborn, is not justified[21].

There is therefore an increased consent, as published for example by the new guidelines for operative vaginal birth by the Society of Obstetricians and Gynecologists of Canada, that "routine Episiotomy is not necessary for an assisted vaginal birth"[22].

Episiotomy is causing early and late complications. 11 out of 68 women (16.5%) reported the Episiorrhaphy as "distressing" or "horrible" experience[23]. Dyspareunia after Episiotomy was reported in 47% of the primiparous woman and by 22% of multiparous women who had it. In mothers who delivered without having an Episiotomy this problem occurred only in 7% and 8% of primiparous and multiparous patients respectively[24].

The Anti-Episiotomy Campaign

For these reasons, during the World Congress of Perinatal Medicine in September 2007 in Florence the New European Surgical Academy (NESA) launched an international Anti-Episiotomy campaign. Information has been distributed in order to increase the awareness concerning the potential of iatrogenic damages and unnecessary suffering. A Cochrane review concluded that except for anterior perineal trauma, restrictive Episiotomy policies have benefits over policies promoting routine Episiotomy: Less posterior perineal trauma, less suturing and fewer complications[13]. Knowledge of the birth-physiology and experience by handling the perineum during birth are the basic requirements to assist successfully the birth and avoid unnecessary lacerations. The performance of Episiotomy should be done only where absolutely evaluated as indicated.

The Episiorrhaphy

Like in every surgical procedure, each surgical step should be subject for evaluation concerning its necessity, and if found so, for its way of performance.

Most of nowadays Episiorrhaphies for median or medio-lateral Episiotomies are done with the traditional three layers technique, continuously or with interrupted knots: The vaginal wall, the deep muscle layer and the skin[25]. It was shown, that the continuous suturing causes less discomfort than when using interrupted sutures, and that the pain level is not significantly different in women sutured using rapidly dissolving or standard material[26]. The three layers method caused less short-term pain when a knotless suturing of the three layers using a loose, continuous non-locking technique was done[27].

The three layers technique, however, is not universal. Reduced dyspareunia by resuming intercourse was reported when a two layer repair leaving the skin unsutured was done (30% versus 40%; RR 0.75; 95% CI 0.61 to 0.91; 2P < 0.01)[28,29].

In cases where Episiotomy is done it is important to define which Episiorrhaphy

Figure 1

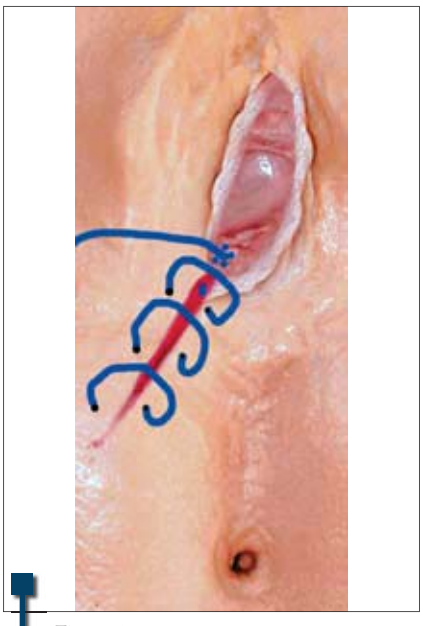

Figure 2

method is the optimal one, causing less discomfort, and resulting in perineal anatomical restitution. For this purpose a study comparing two or three layers was done. In the two layers group the vaginal wall was left unsutured.

Material and methods

In a randomized prospective pilot study 43 primiparae sutured with the traditional three layers closure (vaginal wall continuously, deep layer and skin with interrupted sutures using polyglactin material) were compared to 46 primiparae sutured with a modified closure (continuous suturing of the deep layers starting high as possible, one suture at the lower part (figure 1) and using the rest of the suture material to close the skin continuously all the way up back to the introitus where the final knot is done) (figure 2).

Bleedings from the vaginal wall in women who were sutured with two layers were handled with punctual stitching of the bleeding points. The women were followed up for 48 hours in the hospital and were asked to return for a follow-up after 6 to 8 weeks. Only 28 out of the 43 (65.1%), who were sutured with the traditional three layers closure, and 26 out of the 46 (56.5%) who had the modified closure returned for evaluation after 6 to 8 weeks. The evaluation of the data was done using the t-test in SPSS for Windows.

Results

There was no significant difference between both groups concerning hematomas, local redness and swelling after 24 and 48 hours.

The need for painkillers was similar in both groups after 24 hours and there was a non-significant trend toward less need for painkillers after 48 hours. Among the women who were examined after 6 weeks there was no significant difference concerning local discomfort and pain, however, there was a significant less distortion of anatomy in the two layer group (table 1).

Table 1

Local complications after two layer compared to three layer episiorraphy

Hematomas			
	three layers	two layers	p
After 24 hours	0/43	1/46	NS
After 48 hours	0/43	1/46	NS

Local redness and swelling			
	three layers	two layers	p
After 24 hours	2/43	3/46	NS
After 48 hours	3/43	3/46	NS

Use of pain killers			
	three layers	two layers	p
After 24 hours	8/43	8/46	NS
After 48 hours	6/43	4/46	p<0.01

Distortion of anatomy after 6-8 weeks			
	three layers n = 28	two layers n = 26	p
After 24 hours	8	6	NS
After 48 hours	5	1	p<0.05

Conclusion

The two layer Episiorrhaphy, suturing continuously the deep layers and the skin proved to reduce pain and result in restitution of the anatomy. Whether in long term the two layers Episiorrhaphy will prevent inclusion cysts and dyspareunia should be a subject for future long-term prospective randomized studies. As the Episiotomies do not fulfil their expected benefits they should be prevented whenever possible, and this destructive tradition should be abandoned. If Episiotomies are indicated however, they should be repaired in the most optimized way. It seems that leaving the vaginal wall unsutured and using continuous stitches should become the preferable way. ■

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