Sexual & Reproductive Healthcare 8 (2016) 25–30

Contents lists available at ScienceDirect

Sexual & Reproductive Healthcare

journal homepage: www.srhcjournal.org

Mediolateral versus lateral episiotomy and their effect on postpartum coital activity and dyspareunia rate 3 and 6 months postpartum

Pavlina Necesalova [a], Jaroslava Karbanova [a], Zdenek Rusavy [a], Zlatko Pastor [b], Magdalena Jansova [c], Vladimir Kalis [a,*]

[a] Department of Gynecology and Obstetrics, University Hospital, Faculty of Medicine, Charles University, Alej Svobody 80, 304 60 Pilsen, Czech Republic
[b] National Institute of Mental Health, Klecany, Czech Republic
[c] European Centre of Excellence NTIS – New Technologies for Information Society, Faculty of Applied Sciences, University of West Bohemia, Pilsen, Czech Republic

ARTICLE INFO

Article history:
Received 3 August 2015
Revised 22 December 2015
Accepted 25 January 2016

Keywords:
Mediolateral episiotomy
Lateral episiotomy
Coital activity
Dyspareunia
Perineal pain
Satisfaction

ABSTRACT

Objectives: Comparison of the effects of two episiotomy types on sexual activity, dyspareunia and overall satisfaction after childbirth.
Study design: A prospective follow-up study of a randomized comparative trial evaluating peripartum outcome of a vaginal delivery after mediolateral (MLE) or lateral (LE) episiotomy.
Main outcome measures: The participants completed questionnaires regarding sexual activity, dyspareunia, perineal pain, aesthetic appearance and overall satisfaction 3 (3M) and 6 months (6M) postpartum.
Results: A total of 648 women were available for the analyses (306 MLE, 342 LE). The groups showed no difference regarding resumption and regularity of sex, timing of resumption, frequency and intensity of dyspareunia, perineal pain, aesthetic appearance or overall satisfaction 3M or 6M postpartum. 98.0% of women after MLE and 97.7% after LE resumed sexual intercourse within 6M after delivery ($p = 0.74$). In the same period 15.6% of women after MLE and 16.1% after LE suffered from considerable dyspareunia ($p = 0.86$).
Conclusions: Quality of sexual life and perception of perineal pain after MLE is equivalent to LE.

Introduction

Vaginal delivery and consequent perineal trauma can have a detrimental effect on women's wellbeing. A common obstetric operation, episiotomy – an incision of the perineum during final phase of vaginal delivery – may contribute to impairment of postpartum sexual life [1–7].

Despite the general consensus that a restrictive approach to episiotomy is associated with a superior delivery outcome, data regarding the spectrum of indications and location of episiotomy are incomplete. Recent studies found that exact placement of episiotomy plays a significant role in the risk of subsequent adverse outcome, namely obstetric anal sphincter injury (OASIS) [8]. OASIS is an acknowledged risk factor for postpartum sexual dysfunction, mainly dyspareunia [2,5–7].

Lateralization of episiotomies decreases the risk of OASIS [9–12]. Based on previous studies [8,13,14], mediolateral episiotomy (MLE) has been defined as an incision beginning at the fourchette, directed at an angle of at least 60° from the midline [15]. Lateral episiotomy (LE) – beginning in the vaginal introitus 1–2 cm aside from the midline, directed towards the ischial tuberosity – was recently re-introduced [15]. Only anatomic outcomes of LE have been evaluated [11,12]. Only three studies evaluating short-term perineal pain and healing complications after MLE and LE have been published [11,16,17]. The effects of appropriately executed MLE or LE [13–15] on postpartum pelvic floor function [18] and quality of sexual life [5,16,19] are still unclear.

Two-thirds of women resumed vaginal sex by 3 months (3M) after vaginal delivery with MLE and 90% by 6 months (6M) [3,6,19,20]. Comparing different episiotomy types, no difference was observed in dyspareunia rates after MLE or midline episiotomy which varied between 8–73% at 3M [3,5,19] and 11–36% at 6M [3,5,14,19]. The only prospective observational study performed so far found no difference in dyspareunia or perineal pain after midline episiotomy, MLE and LE at 3M after delivery [16]. To our knowledge, no prospective randomized study comparing sexual activity and dyspareunia after vaginal delivery with MLE and LE in mid- and long-term follow-up has been performed.

The primary objective of this study was to compare resumption of postpartum coital activity and dyspareunia rate. The secondary aims were the evaluation of perineal pain, cosmetic outcome and overall satisfaction at 3M and 6M after delivery with MLE or LE amongst primiparous women.

* Corresponding author. Department of Obstetrics and Gynecology, University Hospital, Faculty of Medicine, Charles University, Alej Svobody 80, 304 60 Pilsen, Czech Republic. Tel.: +420 377 105 212 (work), +420 777 067 699 (mobile).
E-mail address: kalisv@fnplzen.cz (V. Kalis).

http://dx.doi.org/10.1016/j.srhc.2016.01.004
1877-5756/

The following hypotheses were tested:

Performance of LE does not lead to a delay in the resumption of the sexual intercourse, increase in the rate of dyspareunia or impairment of the quality of postpartum sexual life. Secondly, LE does not result in the increase of the incidence of perineal pain, reduction of the aesthetic appearance of episiotomy scar or overall satisfaction compared to MLE.

Methods

This is a prospective follow-up study of a previous randomized comparative trial evaluating peripartum outcome of a first vaginal delivery with MLE and LE [12]. All women delivered at the University Hospital Pilsen, Czech Republic, between April 1, 2010 and April 1, 2012. The study was approved by the local ethics committee and an informed consent was obtained from all participants prior to enrolment. Two previous studies evaluating peripartum and early postpartum outcomes have been published elsewhere [12,17].

A power analysis for 80% power at α-level of 0.05 to confirm equivalency was performed prior to the study commencement. At least 299 women per group were required for sexual intercourse resumption assessment with tolerance limit at ±5%, assuming 95% resumption in sexual intercourse [3,19]. For dyspareunia evaluation, a minimum of 252 women per group were required with tolerance limit at ±10% assuming 20% dyspareunia rate considering published variation in dyspareunia 6 months after delivery with MLE: 11% [3], 14% [15] and 36% [19].

Inclusion criteria were [12] vaginal birth, primiparity, episiotomy, completed 37 weeks of pregnancy, and signed informed consent. Exclusion criteria were maternal age <16 years, previous perineal surgery, stillbirth or delivery with extensive congenital abnormalities, severe condylomata or extensive varicose veins on the vulva, incomplete data regarding sexual intercourse resumption and dyspareunia at 3M and 6M postpartum and inability to communicate in Czech or English.

For the original randomized comparative trial evaluating peripartum outcomes, the patients were randomized into two study groups: primiparas with right-sided MLE and primiparas with right-sided LE [12]. MLE and LE were executed according to recently published international classification [15]. Episiotomy repair followed the same continuous, non-locking technique with subcuticular insertions of 2-0 short-term absorbable polyglactin 910 [21]. Women were blinded to the randomized episiotomy type.

Maternal and neonatal obstetric characteristics and variables recorded were identical to the two previous studies [12,17]: maternal age, education level, ethnic group, marital status, body mass index, number of fetuses, fetal presentation, epidural, duration of the second stage of labour, signs of fetal distress, instrumental delivery, shoulder dystocia, person performing the episiotomy (doctor/midwife), neonatal weight, episiotomy length, shortest distance of the episiotomy from the anus, OASIS, additional vaginal and perineal trauma in continuation of episiotomy (Table 1). All episiotomy parameters were measured after episiotomy repair in the lithotomy position with the parturients' legs flexed at 90–100° [13,22].

Questionnaires were self-completed by the participants at 3M and 6M postpartum, the last month was evaluated. The questionnaires surveyed sexual activity, pain, healing, cosmetic appearance and overall satisfaction with episiotomy.

Postpartum coital sexual activity was assessed by the timing of resumption of sexual intercourse and its regularity. Dyspareunia (defined as introital pain deemed related to episiotomy scar) was assessed regarding its presence, frequency and intensity using a 4-point scale (none, exceptional/mild, some/moderate, usual/high). A 5-point verbal scale (much lower, lower, same, higher, much higher) was used for evaluation of the degree of sexual arousal, satisfaction, ability to achieve orgasm and lubrication. Comparisons were made to the status before pregnancy.

Pain was scored using Visual Analogue Scale (VAS) [23], a 4-point Verbal Rating Score (VRS) [24], and according to interference with activities of daily life (ADL) [25]. In VAS, 0 point equalled no pain and 100 points highest pain. For VRS, pain in four domains: at rest, sitting, moving and during sex was recorded. For ADL, pain during sitting, walking, voiding and sleeping was recorded. Maximum pain scores for both VRS and ADL were 12 points. Regarding VRS, only women that resumed sexual intercourse were evaluated. Painful defection was evaluated separately.

Postpartum oral analgesic use was obtained for the preceding week. Ibuprofen (IBUPROFEN 400 LÉČIVA: Ibuprofenum 400 mg, Zentiva, Prague, Czech Republic) was used for the comparison.

The women assessed scar appearance aesthetically along with overall satisfaction with episiotomy. A modified Visual Analogue Scale (point scale – 0–100, 100 being most favourable) [14,23] was employed.

SAS (Cary, NC, USA) was used for statistical analysis. Basic statistical values (e.g. mean, median, standard deviation, variance, minimum, maximum, quantiles and frequencies) were calculated for study groups and subgroups. Comparison of variable distributions for given groups was performed by non-parametric ANOVA (2-sample Wilcoxon test or 2-sample median test). Categorical variables were analysed with the test and Fisher's exact test and described using contingency tables. The timescale to the end of post-delivery pain was calculated using Kaplan–Meier survival and tested using log-rank tests. A significance level of 0.05 was set throughout.

Results

Out of 3534 primiparous women, 2919 women were eligible for the original study [12] and divided into two groups: MLE (n = 1452) and LE (n = 1467). Three hundred ninety had MLE and 400 LE, matched inclusion criteria and agreed to record peripartum outcome [12]. A further consent to follow-up and to complete postpartum questionnaires as well was provided by 340 (87.2%) women with MLE and 365 (90%) with LE. 306 (90.0%) with MLE and 342 (93.7%) with LE returned both questionnaires and were included in the final analysis (Fig. 1).

The shortest distance between episiotomy and anus was the only significant distinction between the study groups. It was considerably longer in LE women due to episiotomy characteristics (Table 1).

Postpartum coital activity in all women

The MLE and LE groups did not differ in the timing of sexual intercourse resumption; 274 (89.5%) vs. 306 (89.5%) respectively at 3M (p = 0.98) and 300 (98.0%) vs. 334 (97.7%) respectively at 6M postpartum (p = 0.74). Coital activity was regular in 168 (54.9%) vs. 193 (56.4%) respectively at 3M (p = 0.70) and 221 (72.2%) vs. 260 (76.3%) respectively at 6M (p = 0.24) (Table 2).

Within the previous month, any postpartum dyspareunia occurred in 199/279 (71.3%) in MLE vs. 219/311 (70.4%) in LE at 3M (p = 0.81) and 153/302 (50.7%) in MLE vs. 186/336 (55.4%) in LE at 6M (p = 0.24).

Dyspareunia occurring sometimes or usually was registered in 137/279 (49.1%) in MLE vs. 152/311 (48.9%) in LE at 3M (p = 0.96) and 85/302 (31.5%) in MLE vs. 109/336 (32.4%) in LE at 6M (p = 0.24).

Considerable dyspareunia defined as dyspareunia of moderate or high intensity occurring at least sometimes was reported by 77/279 (27.6%) in MLE vs. 92/311 (29.6%) in LE at 3M (p = 0.59) and 47/302 (15.6%) in MLE vs. 54/336 (16.1%) in LE at 6M (p = 0.86) (Table 2).

No significant differences between the study groups in deterioration or improvement of sexual arousal, satisfaction, orgasm or