



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



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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.

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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.

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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 $\pm 5\%$, assuming 95% resumption in sexual intercourse [3,19]. For dyspareunia evaluation, a minimum of 252 women per group were required with tolerance limit at $\pm 10\%$ 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 defecation 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

Table 1
Maternal and neonatal baseline characteristics of the study groups^a.

		All women		
		Mediolateral episiotomy (n = 306)	Lateral episiotomy (n = 342)	p-value
Fetal lie and presentation	Cephalic [N] (%)	300 (98.0)	338 (98.8)	0.39 ^b
	Breech [N] (%)	4 (1.3)	4 (1.2)	
Twins [N] (%)		2 (0.7)	0 (0.0)	
Postpartum uterine atony [N] (%)		42 (13.7)	39 (11.4)	0.37 ^c
Maternal age [years] mean (range)		27.8 (18–41)	28.4 (18–40)	0.06 ^b
Education	Elementary [N] (%)	18 (5.9)	13 (3.8)	0.51 ^c
	Vocational [N] (%)	28 (9.1)	43 (12.6)	
	High school [N] (%)	161 (52.6)	174 (50.9)	
	College + University [N] (%)	99 (32.4)	112 (32.7)	
Ethnicity	Caucasian [N] (%)	305 (99.7)	342 (100.0)	0.30 ^c
	Romany [N] (%)	0 (0.0)	0 (0.0)	
	Asian [N] (%)	1 (0.3)	0 (0.0)	
	Other [N] (%)	0 (0.0)	0 (0.0)	
Marital status	Single [N] (%)	15 (4.9)	15 (4.4)	0.77 ^c
	Married, with partner [N] (%)	291 (95.1)	327 (95.6)	
BMI ^d mean (range)		28.2 (17.8–47.5)	28.0 (20.0–45.7)	0.28 ^b
Epidural [N] (%)		1 (0.3)	2 (0.6)	0.25 ^c
Instrumental delivery	Forceps [N] (%)	2 (0.6)	2 (0.6)	0.91 ^c
	Vacuum-extraction [N] (%)	16 (5.2)	18 (5.3)	
Occipito-posterior presentation [N] (%)		16 (5.2)	11 (3.3)	0.20 ^c
Fetal distress [N] (%)		88 (28.8)	104 (30.4)	0.65 ^c
Execution of episiotomy	Doctor [N] (%)	165 (53.9)	195 (57.0)	0.17 ^c
	Midwife [N] (%)	141 (46.1)	147 (43.0)	
Neonatal weight [g] mean (range)		3321 (2300–4860)	3361 (2460–4620)	0.18 ^b
Maternal blood loss [ml] mean (range)		384 (250–1100)	381 (250–1100)	0.91 ^b
Duration of the 2nd stage [min] mean (range)		25.2 (4–105)	23.9 (4–88)	0.64 ^b
Shoulder dystocia [N] (%)		5 (1.6)	4 (1.2)	0.41 ^c
Apgar score at 5 min < 8 [N] (%)		4 (1.3)	5 (1.5)	0.29 ^c
Neonatal umbilical artery pH mean (range)		7.25 (6.81–7.47)	7.25 (6.95–7.83)	0.96 ^b
3rd/4th degree perineal tear [N] (%)		5 (1.6)	4 (1.2)	0.61 ^c
Length of episiotomy [mm] mean (range)		37 (15–70)	38 (12–75)	0.13 ^a
Shortest distance between episiotomy and anus [mm] mean (range)		33 (0–70)	40 (0–70)	<0.001 ^b
Additional perineal trauma including OASIS [N] (%)		13 (4.3)	11 (3.2)	0.49 ^c
Additional vaginal trauma [N] (%)		59 (19.3)	73 (21.4)	0.52 ^c
Lactation at 3 months ^e		225/306 (73.5)	261/342 (76.3)	0.41 ^c
Lactation at 6 months ^e		196/302 (64.9)	209/341 (61.3)	0.34 ^c
Prepartal dyspareunia		30 (9.8)	21 (6.2)	0.09 ^c

^a Values are given as number (percentage) or mean (range), unless otherwise stated.

^b Nonparametric analysis of variance (two-sample Wilcoxon test).

^c χ^2 test.

^d Calculated as weight in kilograms divided by the square of height in meters.

^e Values are given as number/total number of respondents to the relevant question (percentage).

lubrication were observed (Table 2). Furthermore, no significant differences between the groups in VAS, VRS and ADL pain scores, painful defecation rate, or pain in individual domains, cessation of pain or the amount of analgesics used during the last week were found (Table 3). Cosmetic appearance and overall satisfaction with the episiotomy scar were also comparable (Table 3).

Discussion

This presented study is the first prospective study comparing randomized execution of MLE and LE with respect to female postpartum coital activity, perineal pain, cosmetic appearance and overall satisfaction post-episiotomy 3M and 6M after the first vaginal delivery.

In this study 98.0% of women with MLE and 97.7% with LE resumed sexual intercourse within 6M postpartum. Furthermore, 73.1% of women with MLE and 68.1% with LE re-initiated sex within the first 8 weeks. The results are comparable and/or better compared to other studies on mediolateral episiotomy. Buhling et al. [3] found that 48.2% of women resumed sexual intercourse within 8 weeks and Kalis et al. [14] registered 96% of women resuming sexual intercourse within the first 6M. In a study by Signorello et al. [5] where midline episiotomy was used, 91.5% women resumed sexual intercourse by 6M, at an average interval of 8.4 weeks postpartum [5].

In our study, the dyspareunia was evaluated based on the frequency of its presence and its intensity during previous month.

Dyspareunia was found in 27.6–71.3% after MLE and 29.6–70.4% after LE at 3M and in 15.6–50.7% after MLE and in 16.1–55.4% after LE at 6M depending on the definition of dyspareunia selected (Table 2).

It is difficult to compare postpartum dyspareunia between studies as frequency and degree of dyspareunia are not commonly provided. Dyspareunia after midline episiotomy was reported in 41% in 3M and in 22% vs. 6M [5]. Barret et al. [18] found dyspareunia in 73% 3M and in 36% 6M after delivery, while Buhling [3] reported dyspareunia levels at 21% beyond 3M and in 11% it persisted more than 6M postpartum. In this study, for any of the considered definitions for introital dyspareunia, no significant difference was observed between the study groups.

In accordance with the presented study, the only other study evaluating 24 women with MLE and 78 women with LE 3M postpartum [16] found no difference in VAS score nor in resumption of sexual intercourse or coital pain. The only statistical difference found was pain during walking amongst women after LE [16]. In our study, there was no difference observed between the study groups for walking either at 3M or at 6M.

The main limitation of this study is that a sexual distress specific tool, e.g. the Female Sexual Function Index (FSFI) [26] where answers could provide total scores, was not used. However, at the time when the study was performed, FSFI was not validated in the Czech language. Furthermore, considering that participants had to complete social characteristics, a questionnaire evaluating defecatory

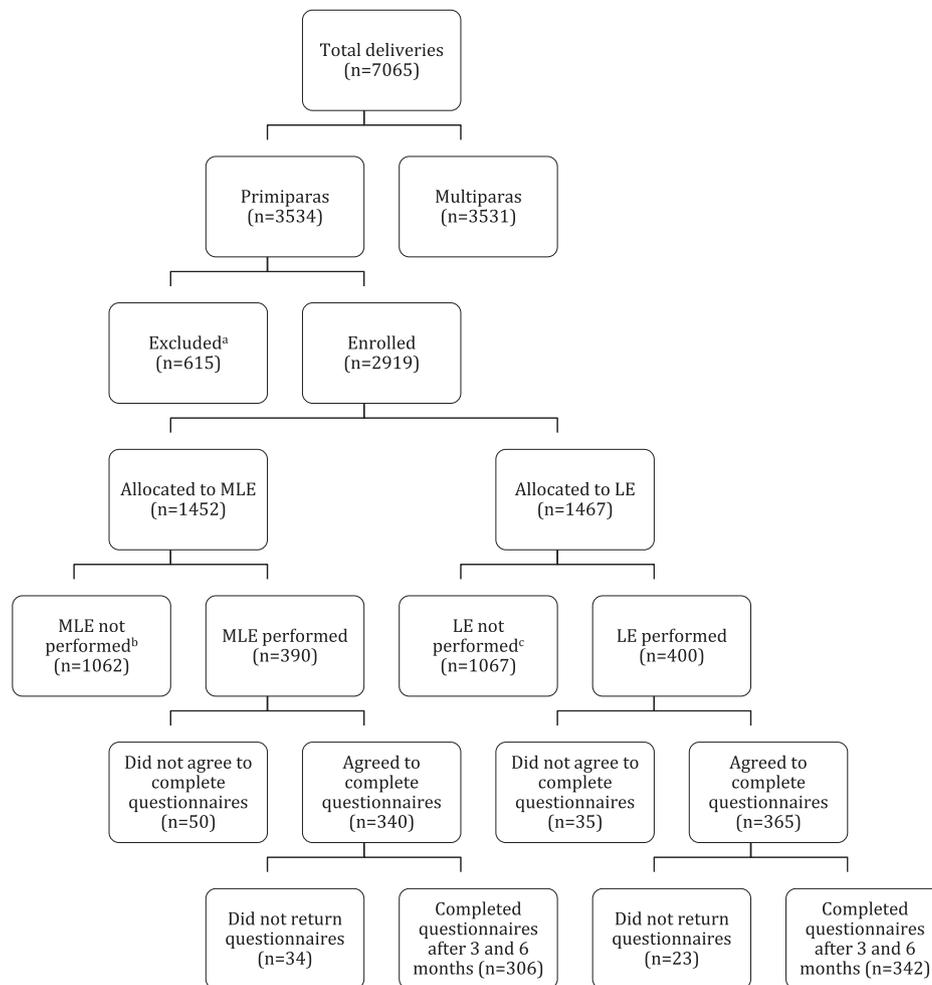


Fig. 1. Flow of patients through the study.

Abbreviations: MLE, mediolateral episiotomy; LE, lateral episiotomy.

^aScheduled Caesarean delivery (n = 475), prematurity (n = 81), disagreement with the study (n = 32), precipitate delivery (n = 10), coinciding deliveries (n = 8), other reason (n = 8).

^bLabour resulting in Caesarean delivery (n = 292), vaginal delivery without episiotomy (n = 766), incorrect type of episiotomy (n = 4).

^cLabour resulting in Caesarean delivery (n = 289), vaginal delivery without episiotomy (n = 776), incorrect type of episiotomy (n = 2).

disorders (data not yet published), several pain scores (containing eight questions) and nine questions evaluating sexuality, FSFI consisting of 19 questions seemed too long and potentially discouraging to participants.

The main advantage of this study is the prospective design and execution of episiotomies according to a new international classification which takes into account the exact location of the cut. This makes the results more reproducible and reliably comparable with other future studies.

In this prospective follow-up study the re-initiation and regularity of sexual intercourse, the frequency and intensity of dyspareunia and pain perception were consistent between groups with MLE and LE. The investigated episiotomy types did not differ, this being confirmed by the test of equivalence (two one-sided tests); the 90%CI was calculated within the pre-defined intervals $\pm 5\%$ (-2.25% ; 1.49%) for resumption of sex and $\pm 10\%$ (-6.57% ; 5.67%) for dyspareunia considering resultant rates of 31.5% and 32.4% amongst the MLE and LE groups respectively. Furthermore, perineal pain, cosmetic evaluation and overall satisfaction did not differ between the study groups within 6 months postpartum.

The long-term continence status of the women after MLE and/or LE has yet to be evaluated as well as further developments of dyspareunia persisting 6M after delivery. Future well designed

studies need to be performed to support the results of the presented study.

Conflict of interest

All authors declare no conflicts of interest and no instances of plagiarism.

Authors' contributions

P Necesalova: data collection, manuscript writing; J Karbanova: data collection, manuscript editing; Z Rusavy: data collection; Z Pastor: project development, manuscript editing; M Jansova: project development; V Kalis: project development, data collection, manuscript writing/editing.

Ethics approval and informed consent

The study was approved by a local ethics committee and all participants signed a detailed informed consent prior to inclusion in the study.

Table 2
Resumption of sexual activity and dyspareunia at 3 and 6 months postpartum^a.

			All women				
			Mediolateral episiotomy (n = 306)	Lateral episiotomy (n = 342)	p-value		
Resumption an regularity of sexual intercourse	3M	Resumed	274/306 (89.5)	306/342 (89.5)	0.98 ^b		
		Regular sexual intercourse	168/306 (54.9)	193/342 (56.4)	0.70 ^b		
	6M	Resumed	300/306 (98.0)	334/342 (97.7)	0.74 ^b		
		Regular sexual intercourse	221/306 (72.2)	260/341 (76.3)	0.24 ^b		
Timing of first postpartum sexual intercourse	<6 weeks		22/301 (7.3)	25/335 (7.5)	0.90 ^b		
	6 weeks		77/301 (25.6)	78/335 (23.3)	0.26 ^c		
	7–8 weeks		121/301 (40.2)	125/335 (37.3)			
	9–12 weeks		45/301 (14.9)	60/335 (17.9)			
	>12 weeks		36/301 (12.0)	47/335 (14.0)			
Dyspareunia	3M	Frequency	No	80/279 (28.7)	92/311 (29.6)	0.99 ^b	
			Exceptional	62/279 (22.2)	67/311 (21.5)	0.95 ^c	
			Sometimes	65/279 (23.3)	71/311 (22.8)		
			Usual	72/279 (25.8)	81/311 (26.1)		
			High	21/278 (7.5)	19/311 (6.1)		
		Intensity	No	80/278 (28.8)	92/311 (29.6)	0.84 ^b	
			A little	115/278 (41.4)	124/311 (39.9)	0.99 ^c	
			Some	62/278 (22.3)	76/311 (24.4)		
			High	21/278 (7.5)	19/311 (6.1)		
			Any dyspareunia	199/279 (71.3)	219/311 (70.4)	0.81 ^b	
	6M	Frequency	Dyspareunia occurring sometimes or usually	137/279 (49.1)	152/311 (48.9)	0.96 ^b	
			Considerable dyspareunia	77/279 (27.6)	92/311 (29.6)	0.59 ^b	
			No	149/302 (49.3)	150/336 (44.6)	0.61 ^b	
			Exceptional	58/302 (19.2)	77/336 (22.9)	0.27 ^c	
			Sometimes	53/302 (17.6)	60/336 (17.9)		
	Intensity	Usual	42/302 (13.9)	49/336 (14.6)			
		No	149/302 (49.3)	150/336 (44.6)	0.19 ^b		
		A little	102/302 (33.8)	131/336 (39.0)	0.26 ^c		
		Some	38/302 (12.6)	48/336 (14.3)			
		High	13/302 (4.3)	7/336 (2.1)			
Sexual arousal	3M	Much lower	153/302 (50.7)	186/336 (55.4)	0.24 ^c		
			Dyspareunia occurring sometimes or usually	85/302 (31.5)	109/336 (32.4)	0.24 ^b	
			Considerable dyspareunia	47/302 (15.6)	54/336 (16.1)	0.86 ^b	
			Lower	20/280 (7.1)	30/313 (9.6)	0.70 ^b	
			Same	69/280 (24.6)	78/313 (24.9)	0.35 ^c	
	6M	Much lower	Higher	156/280 (55.7)	175/313 (55.9)		
			Much higher	29/280 (10.4)	25/313 (8.0)		
			Much lower	6/280 (2.1)	5/313 (1.6)		
			Lower	21/301 (7.0)	19/337 (5.6)	0.11 ^b	
			Same	80/301 (26.6)	67/337 (19.9)	0.02 ^c	
	3M	Much lower	Higher	170/301 (56.5)	208/337 (61.7)		
			Much higher	28/301 (9.3)	35/337 (10.4)		
			Lower	2/301 (0.6)	8/337 (2.4)		
			Much lower	19/279 (6.8)	20/311 (6.4)	0.32 ^b	
			Lower	57/279 (20.4)	85/311 (27.3)	0.10 ^c	
6M	Much lower	Same	171/279 (61.3)	174/311 (56.0)			
		Higher	24/279 (8.6)	27/311 (8.7)			
		Much higher	8/279 (2.9)	5/311 (1.6)			
		Much lower	18/301 (6.0)	18/337 (5.3)	0.43 ^b		
		Lower	64/301 (21.3)	54/337 (16.0)	0.06 ^c		
Sexual satisfaction	3M	Much lower	Same	189/301 (62.8)	222/337 (65.9)		
			Higher	27/301 (9.0)	38/337 (11.3)		
			Much higher	3/301 (1.0)	5/337 (1.5)		
			Much lower	19/278 (6.8)	24/311 (7.7)	0.79 ^b	
			Lower	54/278 (19.4)	71/311 (22.8)	0.30 ^c	
	6M	Much lower	Same	180/278 (64.8)	188/311 (60.5)		
			Higher	20/278 (7.2)	24/311 (7.7)		
			Much higher	5/278 (1.8)	4/311 (1.3)		
			Much lower	20/301 (6.6)	20/337 (5.9)	0.41 ^b	
			Lower	62/301 (20.6)	53/337 (15.7)	0.24 ^c	
	Achieving of orgasm	3M	Much lower	Same	187/301 (62.1)	233/337 (69.2)	
				Higher	29/301 (9.6)	27/337 (8.0)	
				Much higher	3/301 (1.0)	4/337 (1.2)	
				Much lower	25/279 (9.0)	37/311 (11.9)	0.75 ^b
				Lower	88/279 (31.5)	96/311 (30.9)	0.60 ^c
6M		Much lower	Same	145/279 (52.0)	154/311 (49.5)		
			Higher	19/279 (6.8)	23/311 (7.4)		
			Much higher	2/279 (0.7)	1/311 (0.3)		
			Much lower	33/301 (11.0)	19/335 (5.7)	0.15 ^b	
			Lower	81/301 (26.9)	97/335 (28.9)	0.33 ^c	
Lubrication		3M	Much lower	Same	169/301 (56.1)	192/335 (57.3)	
				Higher	17/301 (5.7)	25/335 (7.5)	
				Much higher	1/301 (0.3)	2/335 (0.6)	
				Much lower	25/279 (9.0)	37/311 (11.9)	0.75 ^b
				Lower	88/279 (31.5)	96/311 (30.9)	0.60 ^c
	6M	Much lower	Same	145/279 (52.0)	154/311 (49.5)		
			Higher	19/279 (6.8)	23/311 (7.4)		
			Much higher	2/279 (0.7)	1/311 (0.3)		
			Much lower	33/301 (11.0)	19/335 (5.7)	0.15 ^b	
			Lower	81/301 (26.9)	97/335 (28.9)	0.33 ^c	

Abbreviations: 3M, 3 months; 6M, 6 months.

^a Values are given as number/total number of respondents to the relevant question (percentage).^b Contingency tables and χ^2 test.^c Nonparametric analysis of variance (median two-sample test).

Table 3
Perineal pain at 3 and 6 months postpartum^a.

Pain measure	Period	All women		
		Mediolateral episiotomy	Lateral episiotomy	p-value
VAS score	3M	6 (0–4)	7 (0–5)	0.71 ^b
VRS score		0.8 (0.0–1.0)	0.9 (0.0–1.0)	0.94 ^b
ADL score		0.1 (0.0–0.0)	0.2 (0.0–0.0)	0.68 ^b
VAS score	6M	2 (0–0)	3 (0–0)	0.38 ^b
VRS score		0.3 (0.0–0.5)	0.4 (0.0–1)	0.64 ^b
ADL score		0.0 (0.0–0.0)	0.0 (0.0–0.0)	0.49 ^b
Persistence of pain	3M	65/306 (21.2)	76/342 (22.2)	0.76 ^c
Persistence of pain	6M	13/306 (4.3)	22/342 (6.4)	0.22 ^c
Number of women using analgesics (Ibuprofen) within previous week	3M	0/297 (0.0)	1/337 (0.3)	0.35 ^c
Number of women using analgesics (Ibuprofen) within previous week	6M	0/299 (0.0)	0/337 (0.0)	N/A
Painful defecation	3M	48/305 (15.7)	54/342 (15.8)	0.98 ^c
Painful defecation	6M	23/306 (7.5)	25/342 (7.3)	0.92 ^c
Cosmetic appearance, VAS score ^d	3M	88 (80–100)	87 (80–100)	0.59 ^b
Cosmetic appearance, VAS score ^d	6M	92 (90–100)	91 (88–100)	0.63 ^b
Overall satisfaction, VAS score ^d	3M	89 (86–100)	88 (85–100)	0.61 ^b
Overall satisfaction, VAS score ^d	6M	92 (90–100)	91 (89–100)	0.18 ^b

Abbreviations: 3M, 3 months; 6M, 6 months; VAS, Visual Analogue Scale (0–100); VRS, Verbal Rating Scale (0–12); ADL, Activities of Daily Living (0–12).
^a Values are given as number/total number of respondents to the relevant question (percentage) or mean (interquartile range), unless otherwise stated.
^b Non-parametric analysis of variance (median two-sample test).
^c Contingency tables and χ^2 test.
^d Score on a modified VAS [14,23].

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