

Morbidity from episiotomy

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Abstract

Objective: To assess the morbidity from episiotomy.

Methods: The prospective randomised control study was conducted at the Military Hospital Rawalpindi's Gynaecology & Obstetrics Department from January 2006 to April 2008. It comprised 100 patients who were given a mediolateral episiotomy at the crowning of the foetal head (group 1). Another group of 100 patients were delivered without an episiotomy (group 2). Postpartum morbidity was compared in the two groups. Morbidity included perineal damage by tears, subjective assessment of pain at perineum, dyspareunia after puerperium, feeling of pressure puerperium, incontinence and objective assessment of prolapse after puerperium.

Results: Morbidity including perineal damage by tears, pain at perineum and dyspareunia, was much more in group I as compared to the group II. There was no significant difference in feeling of pressure perineum, subjective feeling of urinary and flatus incontinence or objective assessment of prolapse of vagina and uterus.

Conclusion: There are no significant advantages of episiotomy. In fact, it leads to morbidity which is otherwise avoidable in deliveries that are episiotomy-free.

Keywords: Episiotomy, Morbidity. (JPMA 63: 696; 2013)

Introduction

Episiotomy as the most frequently performed surgical procedure is becoming a technique of the past.¹ Although episiotomy was thought to be an integral part of labour management for most of the 20th century, it has been proven to have many risks, without the benefits that were originally associated with it.² The use of episiotomy should be restricted to situations when expedited delivery is necessary, such as with a non-reassuring foetal heart rate tracing, a prolonged second stage of labour, or when sometimes operative vaginal delivery is required.^{1,3} When an episiotomy is cut or a spontaneous laceration occurs, recognition of any defect and proper stitching, if required, is done. The use of routine or elective episiotomies is clearly not in the best interest of patients.¹⁻³

Previously it was believed that episiotomy shortens the pushing phase and, thus, reduces the chance that the baby will suffer from oxygen deprivation, that it protects the foetal skull and brain from damage as it is "thrust against" the pelvic floor and prevents ragged perineal tears and "permanent relaxation of the pelvic floor with its possible sequelae of cystocele, rectocele, and uterine prolapse".²⁻⁵ Another reason given by many doctors in support of episiotomy is to maintain vaginal tightness for the enhanced pleasure of a sexual partner. So many obstetrical residents are not trained to deliver babies

without performing one.

Decades of clinical research has discovered that episiotomy had few documented benefits. One study⁶ has suggested an optimal episiotomy rate for vaginal deliveries of less than 5% and an operative vaginal delivery rate of less than 6%.⁶ The 2006 American Congress of Obstetricians and Gynaecologists (ACOG) Practice Bulletin recommends that obstetricians should restrict their use of episiotomy.⁷ The largest two randomized controlled trials (RCTs) of episiotomy suggest that women who undergo episiotomy are at increased risk for third- and fourth-degree tears.⁸

Subjects and Methods

The study was conducted at the Department of Gynaecology and Obstetrics of the Military Hospital, Rawalpindi, from January 2006 to April 2008. It comprised 100 patients who were given a mediolateral episiotomy (group I) and an equal number (group II) who were delivered without an episiotomy. The sample size was adopted calculated on the basis of previous literature.⁹ All patients were primiparas carrying full-term singleton pregnancies with normal vertex presentation. Only patients in spontaneous labour were included in the study. Patients with malpresentations, multi-foetal pregnancies, grossly malformed foetus and preterm labour were excluded from the study. All cases of foetal distress, occipito-posterior positions in labour, labours requiring forcep application and neonatal birth weights of more than 4.5kgs were also excluded from the study. Likewise, patients with established or gestational

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diabetes were also excluded. In group II patients, 62 (62%) were delivered without any perineal tears and sustained only minor or no vaginal mucosa lacerations. Besides, 23 (23%) patients in group II had 2nd degree vaginal tears which were stitched; 6 (6%) patients received minor periurethral tears which were also stitched; 9 (9%) patients had first degree vaginal tears which were left as such. In group I, 37 (37%) patients had extensions of episiotomy. None of the patients in any group had 3rd or 4th degree perineal tear. Both groups were taught Kegel exercises¹⁰ on postnatal day and discharged from the hospital. All patients were called during the first postnatal week. The episiotomy site was examined for the health of the stitches. All the patients were inquired about

Patients were then called again just after puerperium and questioned regarding dyspareunia after delivery, feeling of pressure perineum and subjective assessment of urinary, faecal and flatus incontinence. Patients were examined to have an objective assessment of cystocele, rectocele and uterocervical descent.

Results

Basic medical characteristics of the entire study population was noted down (Table-1). Besides, 69 (69%) patients in group I reported pain postnatal compared to 12 (12%) patients in group II (Table-2, 3). The same trend was seen in the patients reporting

Table-1: Summary of cases.

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Pain Group	200	100%	0	0%	200	100%
Dyspareunia Group	200	100%	0	0%	200	100%
Pressure Group	200	100%	0	0%	200	100%
Incontinence Group	200	100%	0	0%	200	100%
Prolapse Group	200	100%	0	0%	200	100%

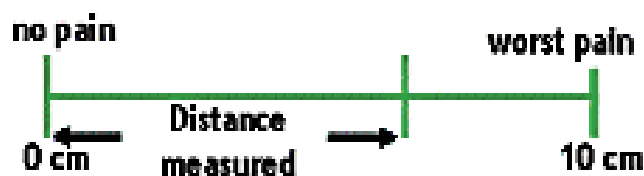


Figure: Visual Analogue Scale (VAS).

Table-2: Number of patients in pain group.

Pain	GROUP		Total
	Group-I	Group-II	
Negative	31	88	119
Positive	69	12	81
Total	100	100	200

Table-3: Chi-square test for pain group.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	67.414 ^b	1	0.000		
Continuity correction ^a	65.069	1	0.000		
Likelihood ratio	72.790	1	0.000		
Fisher's Exact Test				0.000	0.000
Number of valid cases	200				

a: Computed only for 2x2 table. b: 0 cells (.0%) have expected count less than 5. The minimum expected count is 40.50.

the subjective assessment of pain at perineum after delivery according to the Visual Analogue Scale (VAS).

A 10cm line labelled at '0' with 'no pain' and '10' with 'worst pain'. The line was marked by patients at a point corresponding to their assessment of pain. The distance of the mark from zero was then measured (Figure).

Table-4: Number of patients in dyspareunia group.

Dyspareunia	GROUP		Total
	Group-I	Group-II	
Negative	31	88	119
Positive	69	12	81
Total	100	100	200

Table-5: Chi-square test for dyspareunia group.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	38.735 ^b	1	0.000		
Continuity correction ^a	36.995	1	0.000		
Likelihood ratio	40.097	1	0.000		
Fisher's Exact Test				0.000	0.000
Number of valid cases	200				

a: Computed only for 2x2 table.

b: 0 cells (.0%) have expected count less than 5. The minimum expected count is 49.00.

Table-6: Number of patients in pressure group.

Pressure	GROUP		Total
	Group-I	Group-II	
Negative	52	51	103
Positive	48	49	97
Total	100	100	200

dyspareunia (Table-4,5). With respect to feeling pressure, 48 (48%) in group I reported the feeling against 49 (49%) in group II. Likewise, incontinence was reported by 26 (26%) in group I against 24 (24%) in group II (Tables-6-9). Uterine prolapse was seen in higher numbers in group II, but it was statistically insignificant (18% in group I vs. 21% in group II) (Table-10,11).

Table-7: Chi-square test for pressure group.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	0.20 ^b	1	0.887		
Continuity correction ^a	0.000	1	1.000		
Likelihood Ratio	0.020	1	0.887		
Fisher's Exact Test				1.000	0.500
Number of valid cases	200				

a: Computed only for 2x2 table.

b: 0 cells (.0%) have expected count less than 5. The minimum expected count is 48.50.

Table-8: Number of patients in incontinence group.

Incontinence	GROUP		Total
	Group-I	Group-II	
Negative	74	76	150
Positive	26	24	50
Total	100	100	200

Table-10: Number of patients in prolapse group.

Prolapse	GROUP		Total
	Group-I	Group-II	
Negative	82	79	161
Positive	18	21	39
Total	100	100	200

Table-9: Chi-square test for incontinence group.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	0.107 ^b	1	0.744		
Continuity correction ^a	0.027	1	0.870		
Likelihood ratio	0.107	1	0.744		
Fisher's Exact Test				0.870	0.435
Number of valid cases	200				

a: Computed only for 2x2 table.

b: 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.00.

Table-11: Chi-square test for prolapse group.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-square	0.287 ^b	1	0.592		
Continuity correction ^a	0.127	1	0.721		
Likelihood ratio	0.287	1	0.592		
Fisher's Exact Test				0.721	0.361
Number of valid cases	200				

a: Computed only for 2x2 table.

b: 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.50.

Discussion

The study was designed to compare the morbidity in patients with episiotomy with patients without episiotomy. Morbidity is an incidence of ill health. Morbidity was assessed on the basis of extension of episiotomy into the perianal region or the vaginal wall.

It is almost universally accepted that rupture of the anal sphincter (3rd degree tear), especially with concomitant disruption of the rectal mucosa (4th degree tear), is the common complication of highest morbidity from either a spontaneous laceration or from extension of an episiotomy. A study¹¹ cited 7 papers published between 1919 and 1981. Another research studied a random sample of delivery records of 400 women from two hospitals.¹² Comparing women either with or without an episiotomy, the rates of anal sphincter damage were not significantly different between the hospitals. A study¹³ reviewed all births from 1976 to 1987 at the Aarhus University Hospital, Denmark. Medirolateral episiotomy remained the third most powerful predictor of anal sphincter damage, after shoulder dystocia and forceps delivery.

In a university hospital near Stockholm in 1984,¹² patients receiving an episiotomy had a 4.2% chance of a third-degree laceration, compared to 1.7% with no episiotomy. Another study¹⁴ reported that among the spontaneous deliveries, third-degree tears were suffered by 6% without episiotomy, 11% with medirolateral episiotomy, and 20% with midline episiotomy. The first randomized controlled trial published was from Dublin.¹⁵ "None of the patients delivering without having had an episiotomy during either the study or the preceding six months sustained a third-degree tear." The use of midline episiotomy has consistently been found to be the strongest risk factor for a subsequent severe tear, even after controlling for confounding variables. The situation is less suspicious for medirolateral episiotomy: only two studies of reliable design^{13,16} reported an increased risk of deep laceration

with medirolateral episiotomy, while most studies, including four RCTs, have uncovered no positive or negative effect.

One study¹⁷ reported a 15% incidence of pain during episiotomy (mostly medirolateral), versus none for a spontaneous tear, either second- or third-degree. According to another study,¹⁸ 10 per cent of patients with episiotomies were still experiencing pain six weeks after delivery, with none of those with second-degree tears. Others¹⁹ claimed that they could detect no difference in pain between women with episiotomy and those with second-degree lacerations.

Other studies concluded that 38% more women reported residual perineal pain in the liberal episiotomy group than in the restrictive group.^{1,15} The only RCT to use a previously standardised and validated pain scale detected no overall difference between the two trial arms in perineal pain.¹⁶

A study²⁰ surveyed women for dyspareunia, and reported that pain at first postpartum intercourse was less among those with spontaneous tears than among those with episiotomies, while fractions having resumed sexual relations at six weeks and level of sexual satisfaction were similar.

The second major advantage claimed for episiotomy is that it prevents relaxation and its sequelae, such as urinary incontinence, cystoceles, and rectoceles. Research on this question has used two main outcome variables: subjective reports of urinary incontinence and objective measures of pelvic floor muscle strength. In literature, studies have compared postpartum symptoms after episiotomy and spontaneous tears.^{16,21} They were very similar in percentages reporting development of urinary incontinence. Others^{15,16} discovered no difference between the groups of episiotomy versus no episiotomy.

One of them¹⁶ found that liberal or restrictive use of episiotomy had no effect on pelvic floor functioning at

three months postpartum.¹⁰ The only one of these studies to focus specifically on the urinary sphincter mechanism followed 43 nulliparous Dutch women through pregnancy and the puerperium to observe changes in the urethral pressure profile as assessed by a transducer catheter.²² The magnitude of the changes were unaffected by the use or non-use of mediolateral episiotomy. One well-designed study found a marked impairment in pelvic floor muscle strength at eight weeks postpartum in patients with mediolateral episiotomy when compared to those with spontaneous or no laceration.²³

The last main category of claimed benefit for episiotomy is prevention of foetal injury, specifically intracranial haemorrhage and intrapartum asphyxia. A study found that the presence or absence of episiotomy did not change the incidence of intraventricular haemorrhage (IVH) in breech, forceps, or spontaneous vertex deliveries.²⁴

Two studies of premature babies found that episiotomy did not affect the incidence of brain haemorrhage or low Apgar scores.²⁵ If episiotomy has no value even for these fragile babies, it isn't likely to benefit a healthy, full-term infant. No difference in length of second stage with or without episiotomy has been reported.^{13,17,21}

It is frequently asserted that an episiotomy is easier to repair than a spontaneous laceration. There is still no objective confirmation of this claim. Even if it is true, the ease of repair for the accoucheur could be entertained as a reason to perform an episiotomy only if it were definitively shown not to harm the patient in the process. "All of the lacerations that occurred in the absence of episiotomy were easy to repair," noted researchers. The best evidence on this matter is provided by an RCT which found more suture material used in the liberal episiotomy group than in the restrictive group. The former also required more suturing time.

An episiotomy will reduce the risk of anterior tears, but it does so at the expense of the much greater morbidity of posterior perineal injury. In Cambridge, a study claimed that the use of any of several intrapartum interventions, including episiotomy, was negatively correlated with the patient's overall satisfaction with the birth experience.²¹

Several risks of episiotomy include foetal risks, maternal risk and risk to birth attendant. Episiotomy at first vaginal delivery increases the risk of spontaneous

obstetric laceration in the subsequent delivery. This finding should encourage obstetric providers to further restrict the use of episiotomy. Episiotomy may affect women's sex life during the second year post partum with more frequent pain and vaginal dryness at intercourse.

Conclusion

The presented study concluded that no advantages were observed in women receiving an episiotomy compared to the women who delivered without an episiotomy. In fact morbidity in the former group in the form of pain and dyspareunia was significantly higher.

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