Routine Episiotomy Versus Selective Episiotomy in Primigravidae

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Objectives: To compare the maternal and fetal outcome in routine versus selective episiotomy in primigravidae. **Study Design:** A randomized controlled trial conducted at Jinnah Hospital, Lahore, Pakistan. The two interventions compared were selective (limited to specified maternal or fetal indications) and routine episiotomy (following the hospital policy). 200 primigravidae were included in the study, 100 women in each group. The main outcome measure was severe perineal trauma (3rd degree and 4th degree tear). **Results:** Episiotomy was made in 32% of deliveries in the selected and 100% in the routine group. Severe perineal trauma was not seen in either group. Anterior vaginal/ Paraurethral trauma was more common in the selected group. However, posterior surgical repair, perineal pain, wound dehiscence and other healing complications were all less frequent in selected group.

Key Words: Episiotomy,

It is well recognized that the best maternal outcome of pregnancy is a normal vaginal delivery with an intact perineum. Episiotomy is a common obstetric intervention. Some people claim that the procedure should be used liberally to reduce both early complications like serious vaginal and perineal tears as well as longer term problems like stress incontinence and utero-vaginal prolapse. Other believes that episiotomy should be restricted to fetal indication only, because spontaneous tears causes fewer problems than the episiotomies made to prevent them. These different views influence the protocol for use of episiotomy in various hospitals.

The prevalence of episiotomy is declining through out the world. Indication for performing episiotomy during vaginal birth is a controversial topic now requiring worldwide review.

In our country trainees in obstetrics are taught to do episiotomy routinely in all primigravidae.

We felt a need to carry out a comparative study in our setup between routine and selective use of episiotomy in primigravidae.

Patients and methods:

This study was carried out in gynae unit-1, Jinnah Hospital, Lahore. It was an ongoing randomized controlled trial. After admission in the labour ward women were counseled regarding the study and informed consent was taken. Woman was asked to open one of the two envelopes each envelope containing intervention for the either group as mentioned above. First 100 primigravidae in each group were selected for comparison admitted in the hospital for delivery.

The extent of the perineal trauma was assessed at the time of delivery. Healing and morbidity were assessed on first postnatal day at the time of discharge from the hospital and on 7th postpartum day on follow-up visit.

Inclusion criteria: Primigravidae in labour at term with a singleton fetus in cephalic presentation. Patients with gross fetal malformations. There were two groups, 100 primigravidae in each group.

Group-A (Control group). In this group right mediolateral episiotomy was made in all primigravidae according to hospital policy.

Group-B (Study group): In this group episiotomy was avoided and was only given for fetal distress or when severe perineal trauma was judged to be imminent. After admission in labour ward consent was taken from the women and she was asked to open one of the two envelops each envelope containing interventions for either group as mention above, for randomized selection.

Results:

The groups were similar at trial entry in respect of parity, age, gestational age, baby birth weight, instrumental deliveries & use of oxytocin in 2nd stage of labour (Table 1)

Table 1. Patients variables

	Routine group	Selective group
Age	24.86 ± 3.39 Years	24.96±3.33 Years
Gestational age	38.87 ± 0.78 weeks	38.85±0.79 weeks
Birth weight	2982.9 ± 313.9grams	3021±323.3 grams
Instrumental delivery	3%	2%
Oxytocin used in 2nd stage	61% of cases	63% of cases

The rate of episiotomy was 32% in selective group and 100% in routine group. There was no effect on the risk of severe perineal trauma. It was not seen in either group (Table 2). Anterior vaginal tears were more common in selective group. Whereas posterior trauma was more common in the routine group, perineal pain healing complications and wound dehiscence were also less common in selective group. (Table 3)

Table.2. Primary outcome measure – severe perineal trauma (3rd and 4th degree tear)

Severe perineal trauma	Routine group		Selective group		Total	
	No.	%	No.	%	No	%
No.	100	100	100	100	100	100
Total	100	100	100	100	100	100

Chi-square test: value = 0.344df = 3P value = 0.952

Table.3

	Routine Group		Selective Group		OR (95% Cl)
	No.	%	No.	%	
At delivery					
Posterior vaginal middle third tear	12	12	4	4	3.27 (0.94 < OR < 14.36)
Posterior vaginal upper third/ vault tear	2	2	0	0	P value 0.155
Anterior vaginal trauma	6	6	15	15	0.36 (0.11 < 1.05)
Post perineal surgical repair	100	100	48	48	P value = 0.000
Apgar score < at 1 minute	22	22	25	25	0.85 (0.95 < OR < 14.36)
At discharge on first postnatal day					
Perineal pain	95/98	96.9	40/97	41.2	45.13
Hematoma	3/98	3.1	2/97	2.1	1.50(0.175<OR <80.30)
At 7th day post partum					
Perineal pain and discomfort	21/88	23.9	8/81	9.9	2.86(1.11< OR < 7.58)
Healing complications	12/88	13.6	6/81	7.4	1.97 (0.22 < OR < 150.05)
Local infection	3/88	3.4	1/81	1.2	2.82 (0.22 < OR < 150.05)
Wound dehiscence	3/88	3.4	1/81	1.2	2.82 (0.22 < OR < 150.05)

Discussion

In my study the episiotomy rate fell significantly from 100% to 32 %. In the study carried out by Belizan [1] in 1990 to 1992 in Argentina, the rate of episiotomy was 30.1% in selective group. In his study multigravidae were also included, whereas in my study only primigravidae were included. Rockner reported[2] that the incidence of episiotomy in the year 1995 was 24.5% in nullipara a significant decrease from 33.7% in 1989. William[3] reported that in primigravidae the episiotomy rate in UK in the year 1998 were ranging from 26 – 67%. In the study done by Carrole[4] the episiotomy rate in restrictive group was 27.6%. In Dimitrov's[5] study the rate of episiotomy was 32.8% in restrictive group.

In one study carried out by Graham[6] episiotomy rate of 37.7% in Canada in the year 1993 – 1994. WHO recommended an episiotomy rate of 10% for normal deliveries. In the study carried out by Lalarukh in Peshawar, Pakistan[7] there was a steady drop in episiotomy rate in primigravidae from 68.04% in 1996 to 32.15% in 1997, which further dropped to 24.77% in 1998 and in the first half of 1999 it fell further to 7.11%. In my study primary outcome measure was severe perineal trauma out of 100 women in each group no one had severe perineal trauma. In study of Belizan severe perineal trauma was uncommon in both groups but was slightly less frequent in the selective group (1.2% vs 1.5%). In the study of Lalarukh severe perineal trauma in restrictive group of episiotomy was 0.38%.

In Bansal[8] and Tan study the use of episiotomy fell significantly (86.8% to 10.4%). The change was associated with the fall in 3rd and 4th degree laceration (9% to 4.2%).

In my study posterior vaginal middle third and posterior vaginal upper third tears were more common in routine group as compared to selective group. The same results were obtained in Belizan studies. And the Apgar score < 7 at 1minute were 25% in routine group and 22% in selected and the distance was not statistically significant. Belizan study showed that the apgar score < 7 at 1 minute were 35 in routine group whereas 33% in selective group and was statistically in significant. Posterior surgical repair was more common in routine group as compared to selective group. 100% versus 48% P value = 0.00%. One advantage of routine episiotomy identified in this trial was a reduction in anterior vaginal and Paraurethral trauma (6% versus 15% P value 0.038) however; anterior trauma in practice doesn't cause a big problem. In my study only 2 patients require surgical repair for anterior lacerations and there was no problem in passing urine in these patients.

My study shows that there is no evidence that routine use of episiotomy has any beneficial effect. On contrary there is clear evidence that it may cause of more harm in the form of damage to the perineum with greater need for surgical repair. Post partum pain and impaired wound healing is also a problem.

Although I did not set out to address the question of urinary and fecal incontinence. Other trials however have failed to detect any such effect. Klim et al. [9] didn't find any difference between their trail groups in pelvic flow muscle tone measured by electromyographic perineometry, and Sleep and Grant [10] detected no difference in urinary stress incontinence after 3 years.

On the basis of current available evidence a policy of routine episiotomy should be abandoned in primigravidae and rates above 32% cannot be justified. It seems reasonable to suggest that obstetrician should not perform this procedure routinely. They should instead determine the need for episiotomy on a case-to-case basis.

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