

RESULTS

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Table 1 shows the clinical characteristics regarding maternal age, height, weight, gravidity, gestational age, perineal state and fetal head position in the routine and the restricted episiotomy groups.

Table 1 : Clinical characteristics in routine and restricted episiotomy groups.

Patients characteristic	Routine N = 144	Restricted N = 153	P
Age (years) : Range	15-30	18-35	
Mean (SD)	22.1 (2.6)	22.2 (2.9)	0.7
Height (cm) : Range	160-180	155-180	
Mean (SD)	167.6 (5.9)	168.5 (5.8)	0.2
Weight (kg) : Range	60-100	65-110	
Mean (SD)	81.8 (7.4)	81.5 (8.5)	0.7
Gravidity : Range	1-4	1-3	
Mean (SD)	1.05 (0.32)	1.06 (0.29)	0.7
Gestation-period (wks) :			
Range	37-41	37-41	
Mean (SD)	39.7 (1.02)	39.5 (1.1)	0.1
Perineal condition : Soft (N)	132	130	0.1
Rigid (N)	12	23	0.1
Perineal thickness: Thick (N)	107	106	0.4
Thin (N)	37	47	0.4
Fetal head position :			
LOA : N.	126	131	0.8
ROA : N.	18	22	0.8

This table shows that both groups matched regarding all clinical characteristics ($P > 0.05$).

Table 2 shows the delivery characteristic in the routine and the restricted episiotomy groups.

Table 2 : Delivery characteristic in routine and restricted episiotomy groups.

Delivery characteristics	Routine N = 144	Restricted N = 153	P
Crowning-delivery (min) : Range	1-5	1-6	
Mean (SD)	2.7 (0.9)	3.1 (0.9)	0.000*
Cord around the neck : N (%)	29 (20.1)	25 (16.3)	0.5
Apgar - 5 min. : Range**	6-9	4-9	
Mean (SD)	8.7 (0.5)	8.8 (0.6)	0.1
Fetal weight (gm) : Range	2600-4500	2900-4500	
Mean (SD)	3454 (167)	3508 (317)	0.7
Episiotomy : N. (%)	144 (100)	45 (29.4)	0.000*

* Statistically significant.

** Only one case in each group has Apgar score < 7.

This table shows that there was no statistically significant difference between both groups, regarding crowing-delivery duration which was significantly longer in the restricted group ($P = 0.000$) and the rate of episiotomies which was significantly reduced to 29.4% ($P = 0.000$), in the restricted group.

Table 3 shows indications of episiotomy in the restricted episiotomy group (N. = 45), in order of frequency.

Table 3 : Indications of episiotomy in restricted episiotomy group (N. = 45).

Indication	N.	(%)
Rigid perineum	19	42.2
Fetal distress	13	28.9
Fetal macrosomia ($\geq 4000\text{gm}$)	11	24.4
Circumcisional cicatrization	8	17.8
Narrow introitus	3	6.6
Vulval edema	2	4.4
Narrow subpubic angle	1	2.2
Friable perineum	1	2.2
Total	58*	128.7

* 13 parturient had more than one indication.

- Fetal distress : Was diagnosed clinically (persistent FHS < 100 beats/mn.) at the perineal phase of 2nd stage of labour.
- Fetal macrosomia : Was anticipated clinically by abdominal palpation.
- Circumcisional cicatrization : Cicatrization at the anterior perineum, including the site of clitoris and anterior part of the labia minora, with a small band extending between the two labia minora anteriorly.
- Narrow introitus : Introducing more than 2 fingers was difficult.
- Vulval edema was due to trial home delivery by midwives who performed ironing of the perineum with oil.
- Narrow subpubic angle : Not accommodating 2 fingers easily with the fetal head pushed posteriorly and large perineal tear was anticipated.
- Friable perineum : Started to tear on trying to stretch it. This was most probably due to monial infection.
- Thirteen parturients presented with more than one indication and these included :
 - Rigid perineum with narrow subpubic angle in one.
 - Rigid perineum with fetal macrosomia in four.
 - Rigid perineum with fetal macrosomia and fetal distress in one.
 - Rigid perineum with circumcisional cicatrization in two.
 - Narrow introitus with bad circumcision scar in three.

Table 4 shows lower genital tract injuries and need for postpartum analgesia in the routine and the restricted episiotomy groups.

Table 4 : Lower genital tract injuries and need for postpartum analgesia in routine and restricted episiotomy groups.

Variables	Routine N = 144		Restricted N = 153		P
	N	%	N	%	
External genital injuries	20	13.9	36	23.5	0.049*
Vaginal injuries	43	29.9	39	25.5	0.4
Cervical injuries	4	2.7	6	3.9	0.8
Need for postpartum analgesia	142	98.6	75	49.0	0.000*

* Statistically significant.

This table shows that in both groups vaginal injuries and cervical injuries were not significantly different ($P > 0.05$). External genital injuries (other than the episiotomy) were significantly more in the restricted group ($P = 0.049$). Need for postpartum analgesia was significantly less in the restricted episiotomy group ($P = 0.000$).

Table 5 shows types of external genital injuries in the routine and the restricted episiotomy groups.

Table 5 : Types of external genital injuries in routine and restricted episiotomy groups.

Type of injury	Routine N = 144		Restricted N = 153		P
	N	%	N	%	
Posterior perineal tears:	16	11.2	24	15.7	0.3
1 st degree	1	0.7	19 ⁺⁺	12.4	0.000*
2 nd degree	8 ⁺	5.6	4	2.6	0.3
3 rd degree	6	4.2	0	0	0.03* } = 0.02*
4 th degree	1	0.7	0	0	0.9
Hockey-stick extension	0	0	1	0.7	0.9
Anterior tears :	5	3.5	13	8.5	0.1
Labial	0	0	5 ⁺⁺	3.3	0.08
Paraurethral	5 ⁺	3.5	8	5.2	0.7
Total	20	13.9	36	23.5	0.049*

+ One case with 2nd degree perineal tear and paraurethral tear.

++ One case with 1st degree perineal tear and anterior tear at the scar of circumcision.

* Statistically significant.

This table shows that first degree perineal tears were significantly more in the restricted episiotomy groups (P = 0.000). Third and fourth degree perineal tears occurred only in the routine episiotomy group (7 cases) while none occurred in the restricted episiotomy group (P = 0.03). There was no statistically significant difference between both groups regarding other types of injury. P for third and fourth degree lacerations between both groups (7/144 = 4.9% in routine vs 0/153 = 0.0% in restricted), as this is the most serious injury, was 0.02, i.e. significantly less in restricted group.

Table 6 shows the types of vaginal injuries in the routine and the restricted episiotomy groups.

Table 6 : Types of vaginal injuries in routine and restricted episiotomy groups.

Type of injury	Routine N = 144		Restricted N = 153		P
	N	%	N	%	
Lateral wall tear :	21	14.6	22	14.4	0.9
Left	18	12.5	7	4.6	0.03*
Right	0	0	3	1.9	0.3
Bilateral	3	2.1	12	7.8	0.04*
Posterior wall tear	1	0.7	8	5.2	0.054
Anterior wall tear	1	0.7	0	0	0.9
Multipule tears	5	3.5	1	0.6	0.2
Apical extension of episiotomy:	15	10.4	8	5.2	0.1
To mid vagina	14	9.7	8	5.2	0.2
To posterior fornix	1	0.7	0	0	0.9
Total	43	29.9	39	25.5	0.4

* Statistically significant.

This table shows that there was no statistically significant difference between both groups regarding the total number of vaginal injuries ($P = 0.4$). Left lateral wall tears were significantly less in the restricted episiotomy group ($P = 0.03$), and bilateral tears were significantly more in restricted episiotomy group ($P = 0.04$). Total number of lateral tears was not significantly different ($P > 0.05$).

Table 7 shows seven to ten-days postpartum perineal wound complications and flatus incontinence in the routine and the restricted episiotomy groups.

Table 7 : Seven to ten-days postpartum perineal wound complication and flatus incontinence in routine and restricted episiotomy groups.

Complication	Routine N = 134 ⁺		Restricted N = 142 ⁺		P
	N	%	N	%	
Wound oedema	9	6.7	4	2.8	0.2
Wound induration	2	1.4	0	0	0.5
Wound infection	1	0.7	0	0	0.9
Wound dehiscence	6	4.5	0	0	0.03*
Delayed healing	7	5.2	5	3.5	0.7
Secondary sutures	6	4.5	1	0.7	0.1
Total	15 ⁺⁺	11.2	6 ⁺⁺	4.2	0.049*
Flatus incontinence	7	5.2	0	0	0.02*

⁺ Ten women in the routine and 11 in the restricted episiotomy group did not attend the ten days postpartum follow up.

⁺⁺ Eleven women in the routine and 4 in the restricted episiotomy group presented by combined perineal wound complications.

* Statistically significant.

This table shows that there was no statistically significantly difference between both groups, except for wound dehiscence that was significantly less in the restricted episiotomy group ($P = 0.03$) and in total seven to ten-days postpartum complications that was significantly more in the routine episiotomy group ($P = 0.049$). Flatus incontinence was occurred only in routine episiotomy group ($P = 0.02$).

Table 8 shows the three-months postpartum pelvic floor function and perineal status in routine and restricted episiotomy groups.

Table 8 : Three-months postpartum pelvic floor function and perineal status in routine and restricted episiotomy groups.

Pelvic floor function and perineal status	Routine N = 124 ⁺		Restricted N = 136 ⁺		P
	N	%	N	%	
Perineal heaviness or discomfort at three months	15	12.1	5	3.7	0.02*
Flatus incontinence	0	0	0	0	
Urinary incontinence	0	0	0	0	
Vaginal introitus capacity					
Average	110	88.7	134	98.5	0.000*
Narrow	13	10.5	0	0	0.000*
Patulous	1	0.8	2	1.5	0.9
Levator ani tone					
Strong	102	82.3	123	90.4	0.08
Medium	22	17.7	13	9.6	0.08
Weak	0	0	0	0	
Genital prolapse	0	0	0	0	
Weak external anal sphincter	1	0.8	0	0	0.9

⁺ Twenty women in the routine and 17 in the restricted episiotomy group did not attend the 3-month follow-up.

* Statistically significant.

This table shows statically significant difference between both groups regarding; perineal heaviness at 3-months postpartum which was more in the routine group ($P = 0.02$), and in narrow vaginal introitus ($P = 0.000$) that were more in the routine group. Vaginal introitus with average capacity was significantly more in the restricted group ($P = 0.000$).

Table 9 shows the three-months sexual function in the routine and the restricted episiotomy groups.

Table 9 : Three-month sexual function in routine and restricted episiotomy groups.

Sexual function	Routine N = 124	Restricted N = 136	P
Resumption of sexual function (days) :			
Range	30-70	30-60	
Mean (SD)	40.7 (9.9)	35.9 (5.7)	0.000*
Number of cases with dyspareunia: N (%)	67 (54.04)	53 (38.97)	0.02*
Number of cases with less sex. satisf:N(%)	18 (14.5)	4 (2.9)	0.002*

* Statistically significant.

This table shows that in the restricted group the mean time of postpartum resumption of sexual function was significantly earlier ($P = 0.000$), dyspareunia was less ($P = 0.02$), and women with less sexual satisfaction was less ($P = 0.002$).

Table 10 shows the types, duration and severity of dyspareunia in the routine and the restricted episiotomy groups.

Table 10 : Types, duration and severity of dyspareunia in routine and restricted episiotomy groups.

Dyspareunia (types, duration and severity)	Routine N = 124*		Restricted N = 136*		P
	N	%	N	%	
Superficial, at first intercourse, mild	37	29.8	40	29.4	0.9
Superficial, at first intercourse, moderate	2	1.6	1	0.7	0.9
Superficial, for 1 to 2 month, mild	1	0.8	0	0	0.9
Superficial, for 1 to 2 month, moderate	3	2.4	0	0	0.2
Superficial, persistent, mild	1	0.8	5	3.7	0.3
Superficial, persistent, moderate	16	12.9	7	5.1	0.046*
Superficial, persistent, severe	2	1.6	0	0	0.4
Deep, persistent, moderate	2	1.6	0	0	0.4
Deep, persistent, severe	1	0.8	0	0	0.9
Superficial & deep, persistent, moderate	2	1.6	0	0	0.4
Total	67	54.04	53	38.97	0.02*

* Statistically significant.

This table shows that the total number of women with dyspareunia, and those with superficial, persistent, moderate type statistical significant were more in the routine groups ($P = 0.02$), ($P = 0.046$), respectively.

Table 11 shows comparison between 2 subgroups in the restricted episiotomy group namely; the group with indicated episiotomy (n = 45) and the group with spontaneous perineal tears (n = 27).

Table 11 : Indicated episiotomy versus spontaneous perineal tears.

Comparison item	Episiotomy	Spontaneous tear	P
Need for analgesia : N (%)	38/45 (84.4)	25/27 (92.6)	0.5
Wound complication : N (%)	5/40 (12.5)	1/27 (3.7)	0.4
Perineal heaviness/discomfort : N (%)	5/39 (12.8)	0/27 (0)	0.1
Resump.of sex.funct.:(days),mean (SD)	37.8 (6.5)	37.6 (4.2)	0.8
Cases with dyspareunia : N (%)	27/39 (69.2)	15/27 (55.6)	0.3
Cases with less sex. Satisf. : N (%)	2/39 (5.1)	0/27 (0%)	0.6

This table shows that there is no statistically significant difference between the two subgroup regarding; the need for analgesia, wound complication, perineal heaviness, resumption of sexual function, number of cases with dyspareunia and number of cases with less sexual satisfaction ($P > 0.05$).