

## Comparison between No and Routine Mediolateral Episiotomy during Delivery in Primigravidae, Regarding Maternal and Neonatal Outcome

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### Abstract

**Background:** Episiotomy is a term used to describe a (simple) surgical procedure that is usually done using surgical scissors to widen the opening of the vagina at the time of the birth of the child's head to protect the mother from injury to the anal area during childbirth.

**Aim of Study:** To assess efficacy of limited mediolateral episiotomy during delivery of primigravidae regarding maternal and neonatal outcome.

**Patient and Method:** This randomized controlled trial was conducted in the Emergency Unit of Obstetrics and Gynaecology Department at Kasr Al-Aini Hospital, Cairo University, in the period from March 2019 to November 2019.

**Results:** Our study regarding to demographic data showed that no statistically difference in the term of age, 2<sup>nd</sup> stage duration, neonatal weight and gestational age >0.05. Our study regarding to Perineal injuries showed that was statistically difference in the term of Perineal injuries vs age, Perineal injuries vs 2<sup>nd</sup> stage duration and Perineal injuries vs neonatal weight <0.05. Our study regarding to vaginal injuries showed that was statistically difference in the term of vaginal injuries vs age, vaginal injuries vs 2<sup>nd</sup> stage duration and vaginal injuries vs neonatal weight <0.05.

**Conclusion:** The research shows that the use of the limited vaginal Episiotomy is safe for both mother and child as long as it is applied by people in the field of obstetrics with experience. Episiotomy can be used in cases where the child is tired during childbirth or when there is a wound in the perineum that continues to expand towards the anus, in order to redirect the wound to prevent major injuries and long-term complications.

**Key Words:** Limited – Episiotomy – Primigravidae.

### Introduction

**THE** vagina and perineum may rip during vaginal delivery. Although estimates of the prevalence vary, a more recent retrospective cohort revealed

that 34% of 1785 Australian women who had a first- or second-degree perineal tear also experienced a perineal scrape [1].

Without treatment, small tears could heal rapidly. Some of them are more serious, causing damage to muscle, tissue, and sometimes even the anal sphincter. Depending on their severity, these more serious rips need surgical treatment and may lead to a variety of issues in the early postnatal period. Women may have dyspareunia (pain during sexual activity), discomfort, bleeding, infection, and a lengthy hospital stay. Some long-term issues in women, such as pain, urinary fistulas (an abnormal connection between the vagina and the bladder or urethra), rectal fistulas (an abnormal connection between the vagina and the rectum), faecal incontinence (the inability of control causing faecal accidents), dyspareunia, and genital-urinary prolapse, can arise from damage to the vaginal and perineal (the pelvic organs descending from their normal position) [2].

During the last stretch of the second stage of labor, an incision is made in the perineum to surgically expand the vaginal aperture. Despite being originally brought up in the 18<sup>th</sup> century, it took sir Fielding Ouled 100 years to first explain it in a medical journal before it became widely acknowledged. The perineum is usually stretched thin by the time it is performed late in the second stage. If a woman does not undergo regional anesthesia, local anesthesia is given to numb the perineum before to the incision. Episiotomies may be performed in a variety of methods, but the two most common in medical practice are "midline" and "mediolateral" [3-5]. Episiotomy rates significantly rose in the first half of the 20<sup>th</sup> century. Episiotomy is now among the surgical operations that are

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carried out the most often worldwide. Some nations, like Argentina and China, have high rates of episiotomies because they routinely perform it on virtually all first-time mothers. Other locations follow a strategy of "selective" use of episiotomy, which restricts rather than mandates its usage [6-8].

According to the majority of midwives, women without episiotomies cry less often than those who do. To modify episiotomy practice, practice procedures and instructional initiatives are required. The choice to conduct an episiotomy should be based on clinical factors, according to the American College of Obstetricians and Gynecologists, who state that "based on the existing data, there are no particular situations in which episiotomy is needed". What are the true indications for episiotomy, according to a Cochrane systematic review [9]. Premature birth, breech presentation, fetal macrosomia, shoulder dystocia, artificial delivery (forceps or vacuum extraction), an unsettling fetal heart rate, a stiff perineum, and impending perineal tears have all been proposed as possible explanations. However, it's been disputed whether or not these circumstances really constitute episiotomy indications. Clearly, further clinical studies should be conducted to further examine this subject [10].

Based on the findings of a randomized clinical study carried out in the United Kingdom and published in 1984, the World Health Organization (WHO) advises an episiotomy rate of 10% as "a desirable aim to achieve" [11].

With respect to maternal and fetal outcomes, this research compares the benefits and risks of standard vs no episiotomy methods used during the delivery of the fetal head in the second stage of labor in primigravidae.

### **Patients and Methods**

From March to November 2019, this randomized controlled experiment was carried out at the emergency room of the Obstetrics and Gynecology Department at Kasr Al-Aini Hospital, Cairo University.

200 full-term, clinically healthy primigravida over the age of 18, with a live, full-term fetus (37 to 40 weeks gestation), in the late second stage of labor, and with cephalic presentation (vertex position), participated in the research.

207 women who were in labor throughout the research period were given consideration for inclusion. 7 of them refused to participate. Therefore, the remaining 200 participants were randomly

divided in to 2 groups using closed envelope technique:

Group (A): (Routine episiotomy)

This group included 100 women. Episiotomy was done routinely to all participants.

Group (B): (No episiotomy)

This group included 100 women. Episiotomy was not done for all except for 2 cases, which were excluded from the study group and replaced with other 2 patients who did not under goepisiotomy.

#### *Inclusion criteria:*

We included in our study; Primigravida, Aged above 18 years, Term pregnancy above 37 weeks, Cephalic presentation and late second stage of labor during crowning.

#### *Exclusion criteria we excluded from our study:*

EFW more than 3500 grams, Instrumental deliveries, Non-reassuring fetal heart trace, Twin pregnancies, Vulvar varicosities, abscesses, Manual separation of placenta and Shoulder dystocia.

#### *Intervention:*

The obstetricians (resident physicians) were told to treat group B (those who had no episiotomies) according to the tenet that episiotomies are unnecessary, even in circumstances when the research shows they would be beneficial. Due to this, episiotomies were not to be done on this group of patients until absolutely essential under rare conditions, such as fetal distress or a perineal rip that extended near the anal sphincter. The obstetricians for group A (routine mediolateral episiotomy) shall execute episiotomies on all patients included in the group, in accordance with the institute's standard operating procedure. It was noted how long the second stage of labor lasted. Following birth, the vulvar introitus, perineal area, vaginal walls, and paraurethral region were all visually inspected to assess the perineal conditions. When perineal lacerations were present, they were divided into four categories: First degree, second degree, third degree, and fourth degree. First degree lacerations included the skin and/or vaginal mucosa. Second degree lacerations damaged the perineal muscles (in addition to the sphincter, the rectal mucosa is also affected). Severe perineal injury was defined as third and fourth degree tears. Women were informed that they might visit the hospital again if they felt the need to do so due to potential difficulties. Before being discharged within six hours after birth, a health professional conducted regular examinations of the perineal area on all of the women throughout these timeframes.

**Outcomes:**

The primary maternal outcomes were: Frequency and grading of perineal trauma (any type: Episiotomy or tearing); frequency, degree and locations of spontaneous vaginal lacerations; frequency and degree of paraurethral lacerations; duration of second stage; need for perineal suturing, and the number of suture threads used and the duration of repair. First and fifth minute Apgar scores were the main perinatal outcomes. The incidence of severe perineal injuries (grade 3 and 4) and the newborn's admission to the neonatal intensive care unit were the secondary outcomes assessed. Cases in group B who underwent episiotomy for fetal distress or impeding severe perineal injury were excluded from the study group.

**Sample size:**

In order to calculate the sample size, the incidence of perineal damage was compared between parturient women who had standard episiotomies and those who did not. PS Power and Sample Size Calculations software, version 3.0.11 for Microsoft Windows, was used to calculate the sample size. Therefore, 100 people in each arm should make up the bare minimum or ideal sample size. The data analysis was carried out by a statistician who was unaware of the group assignment.

**Statistical analysis:**

The section on statistics in the materials and techniques Data were statistically reported using the mean, standard deviation (SD), median, and range, or, where suitable, frequencies (number of occurrences) and percentages. The Kolmogorov-Smirnov test was used to determine if numerical data supported the normal assumption. The Mann Whitney U test for independent samples was used to compare data that was not normally distributed, and the Student *t*-test for independent samples was used to compare numerical variables across the research groups. An analysis using the Chi-square ( $X^2$ ) test was done to compare categorical data. When the anticipated frequency is less than 5, an exact test was utilized in its place. It was deemed statistically significant when the two side dp value was less than 0.05. IBM SPSS (Statistical Package for the Social Science; IBM Corp., Armonk, NY, USA) release 22 for Microsoft Windows was used for all statistical computations.

**Results**

All women who were in the second stage of labor at the time the fetal head was crowning were included in this research. Patients were randomly selected (using toss method) to either undergo a routine episiotomy protocol or no episiotomy protocol in labour. The patients were selected from Cairo University, Kasr El-Aini Maternity Hospital.

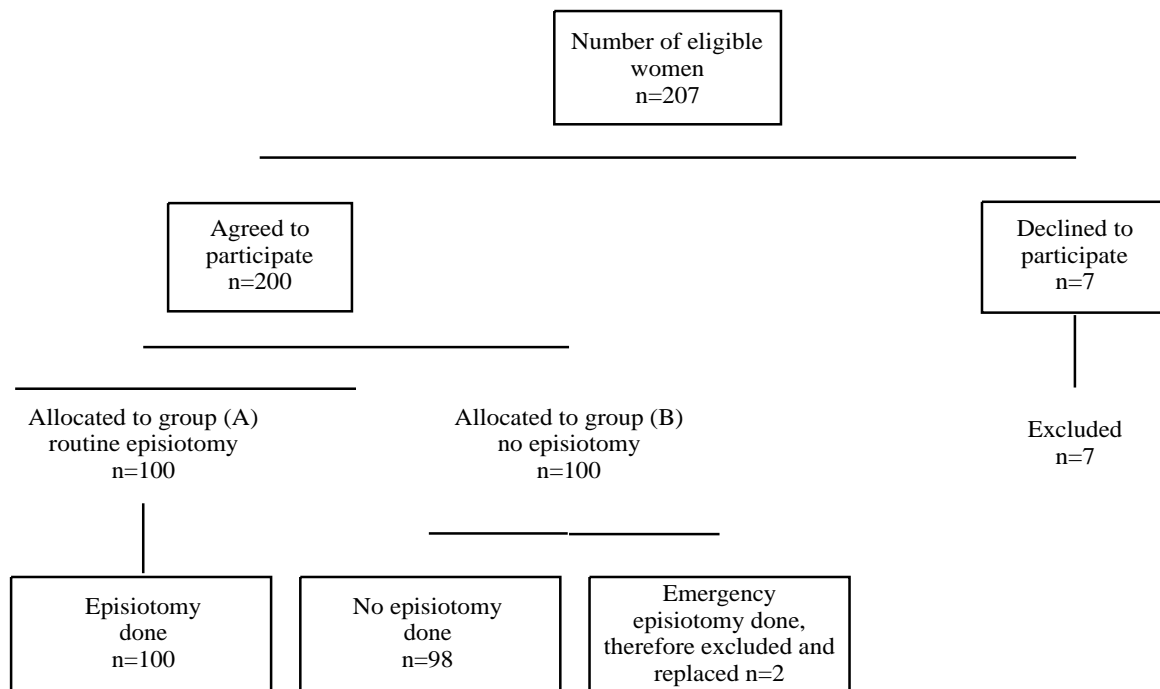


Fig. (1)

Table (1): Demographic data of our study.

	Group A (100)	Group B (100)	p- value
Age	22.6 (±3.9)	23.1 (±4.4)	0.13
2nd stage duration ≥60min (61)	32 (52.5%)	29 (47.5%)	0.102
2nd stage duration <60min (139)	68 (49%)	71 (51%)	
Neonatal weight	3334 (±364)	3428 (±450)	0.106
Gestational age	38 (±0.9)	38.3 (±0.91)	0.292

Our study regarding to demographic data showed that no statistically difference in the term of age, 2<sup>nd</sup> stage duration, neonatal weight and gestational age >0.05. Table (1).

Table (2): Perineal injuries in our study.

	Group A (100)	Group B (100)	p- value
Perineal injury	100 (100%)	86 (86%)	0.03
No injury	0 (0%)	14 (14%)	
Perineal laceration G1	0 (0%)	32 (37.2%)	0.001
Perineal laceration G2	98 (98%)	50 (58.1%)	
Perineal laceration G3	2 (2%)	4 (4.7%)	
Perineal laceration G4	0 (0%)	0 (0%)	
Perineal laceration <20 years	22 (100%)	17 (62.9%)	0.003
Perineal laceration ≥20 years	78 (100%)	69 (94.5%)	0.012
Perineal lacerations & 2nd stage duration ≥60 min	32 (100%)	26 (89.7%)	0.027
Perineal lacerations & 2nd stage duration <60 min	68 (100%)	60 (84.5%)	0.001
Perineal laceration with neonatal birth weight <3kg	19 (100%)	9 (75%)	0.001
Perineal laceration with neonatal birth weight ≥3kg	81 (100%)	77 (87.5%)	

Our study regarding to Perineal injuries showed that was statistically difference in the term of Perineal injuries vs age, Perineal injuries vs 2<sup>nd</sup> stage duration and Perineal injuries vs neonatal weight <0.05. Table (2).

Table (3): Vaginal lacerations in our study.

	Group A (100)	Group B (100)	p- value
Vag. lacerations	100 (100%)	86 (86%)	0.04
Intact Vag. walls	0 (0%)	14 (14%)	
Vag. lacerations <5cm	88 (88%)	66 (76.7%)	0.033
Vag. lacerations ≥5cm	12 (12%)	20 (23.3%)	
Vag. lacerations Post. Wall	88 (88%)	54 (62.7%)	0.002
Vag. lacerations Ant. Wall	0 (0%)	4 (4.7%)	
Vag. lacerations Post. & lat. Wall	12 (12%)	28 (32.6%)	
Vag. lacerations <20 years	22 (100%)	24 (88.9%)	0.001
Vag. lacerations ≥20 years	78 (100%)	62 (84.9%)	
Vag. lacerations with neonatal birth weight <3kg	19 (100%)	10 (83.3%)	0.001
Vag. lacerations with neonatal birth weight ≥3kg	81 (100%)	76 (86.4%)	

Our study regarding to vaginal injuries showed that was statistically difference in the term of vaginal injuries vs age, vaginal injuries vs 2<sup>nd</sup> stage duration and vaginal injuries vs neonatal weight <0.05. Table (3)

Table (4): Para urethral in our study.

	Group A (100)	Group B (100)	p- value
Para urethral tear lengths	0.75 (±0.28)	0.72 (±0.25)	0.28
Paraurethral tears distance from the urethral orifice	0.62 (±0.23)	0.8 (±0.21)	0.084
Paraurethral injury incidence in age <20yrs	1 (4.5%)	8 (29.6%)	0.003
Paraurethral injury incidence in age ≥20yrs	7 (8.9%)	10 (13.7%)	
Paraurethral injury with second stage duration of labour <60min	6 (8.9%)	10 (14.1%)	0.08
Paraurethral injury with second stage duration of labour ≥60min	2 (6.3%)	8 (27.6%)	
Paraurethral injury incidence with relation to neonatal birth weight <3kg	1 (5.3%)	2 (16.7%)	0.02
Paraurethral injury incidence with relation to neonatal birth weight ≥3kg	7 (8.6%)	16 (18.2%)	

Our study regarding to Para urethral injuries showed that was statistically difference in the term of Para urethral injuries vs age, Para urethral injuries vs 2<sup>nd</sup> stage duration and Para urethral injuries vs neonatal weight <0.05. Table (4).

Table (5): Hospital resources.

	Group A (100)	Group B (86)	p- value
Number of suture material used	112	110	0.426
Mean operative duration	20.7 min	21.6 min	0.132

Our study regarding to demographic data showed that no statistically difference in the term of Number of suture material used and Mean operative duration >0.05. Table (5).

Table (6): Neonatal outcome.

	Group A	Group B	p- value
1st min APGAR score	7.6	7.5	0.292
5th min APGAR score	8.5	8.6	0.106

Our study regarding to demographic data showed that no statistically difference in the term of 1<sup>st</sup> min APGAR score and 5<sup>th</sup> min APGAR score >0.05. Table (6).

## Discussion

Major medical associations concur with the World Health Organization (WHO) that performing episiotomies on a regular basis does not seem to reduce perineal injury and may even have negative effects [12].

Our study was designed exclusively in primiparous women to compare the outcomes of routine episiotomy protocol during delivery with no episiotomy protocol regarding perineal, vaginal, paraurethral injury rates, repair timing and suture material needs as well as neonatal outcome represented by 1<sup>st</sup>, 5<sup>th</sup> minute APGAR scoring and need for NICU admission, putting to consideration the age difference, duration of second stage and neonatal weight between the two groups. Therefore, this study was designed as a randomized clinical trial and randomization of the participants was done via simple randomized closed envelope technique to avoid any selection bias. The analysis was performed on an intention-to-treat basis. The sole indications for conducting episiotomies were a "perineal tear moving toward anal sphincter" and an unsettling fetal heart rate, which were the only ones noted.

Our research may have been conducted at this institution at the ideal time given the young obstetricians' very high rates of episiotomies during the previous 10 years. It is envisaged that this research will help to greatly lower the number of episiotomies done routinely at the Cairo University "Kasr Al-Aini" Hospital and elsewhere.

Regarding perineal injuries incidence, Our Results showed a statistically significant difference between routine episiotomy and no episiotomy groups regarding the rate of perineal tears in the routine episiotomy group (100%) compared to the no episiotomy group (86%). We reported that among women allocated to non-episiotomy group, 14% had no perineal tears and 37.2% sustained minimal perineal injuries (grade 1 perineal injuries), most of which (18 out of 32 patients) didn't need suturing. concluding that the non-episiotomy protocol protects the perineum from performing a routine avoidable iatrogenic injury ( $p=0.003$ ).

These results agreed with Amorim et al., who reported an intact perineum rate of 60%, with only 23% of women requiring perineal suturing. Amorim et al. and Klein et al., concluded that Episiotomy-friendly doctors were more likely to utilize labor-inducing methods, and their patients were more likely to endure perineal trauma and worse levels of satisfaction with the birthing process, providing evidence that doctor attitudes may affect patient

outcomes. They discovered that women treated by doctors who had a highly negative opinion of episiotomy were more likely to have an undamaged perineum (23 percent vs. 11 to 13 percent) and to have less perineal injuries. Patients of doctors who viewed episiotomy very favorably reported more perineal pain than patients of doctors who viewed the procedure very unfavorably ( $p<0.01$ ), and patients of doctors who viewed episiotomy favorably and very favorably reported less satisfaction with the birthing process ( $p<0.01$ ). According to Amorim et al., A protracted second stage, macrosomia, an unsettling fetal heart rate, an instrumental birth, the occiput posterior position, pelvic delivery, and shoulder dystocia have all been questioned as potential reasons for episiotomy [13].

Carroli et al., stated that Other benefits of restricted episiotomy protocols included less blood loss, less need for sutures, less postpartum perineal pain, a lower risk of perineal suture complications (oedema, dehiscence, infection, and hematoma), fewer instances of postpartum loss of perineal muscle strength, and a lower risk of dyspareunia. Based on the findings of Carroli and Melo et al., Has the issue, "Is there really any rationale for conducting episiotomy and whether the technique, even when used selectively, gives any benefit at all, either immediately or later?" been raised recently. Thacker and Batna, et al., highlighted that Regular episiotomy procedures might have negative effects such perineal discomfort, hematomas, infections, dyspareunia, and difficulties recovering. Episiotomy was allegedly brought into obstetric practice without any supporting scientific data. Its use became widespread in the twentieth century based on recommendation of well known obstetricians such as Gabbe and Delee, et al. Furthermore Pérez, et al., stated that, Regular episiotomy is increasingly seen as a kind of obstetric abuse, especially when done without the patient's knowledge or permission. A situation in which childbirth in any form is viewed as pathological, when a woman is instantly transformed into a patient, and when routine medical and pharmaceutical procedures are carried out without giving the woman the right to make her own decisions regarding her own body is described by the relatively new legal term "obstetric violence". Mistreatment during delivery is the routine performance of operations that are not only unneeded, but also potentially hazardous. In this scenario, episiotomy that occurs often or frequently might be classified as female genital mutilation [14-18].

Marija et al., stated that the length of the second stage of labor increased the risk of severe perineal

abrasions. Women who had a second stage of labor lasting more than two hours were at higher risk than those whose second stage lasted one hour or less (aOR 1.42; 95% CI 1.28-1.58). In our study patients in no episiotomy group with 2<sup>nd</sup> stage duration longer than 1h had higher perineal laceration rate than patients with 2<sup>nd</sup> stage shorter than 1h ( $p=0.394$ ). In our study patients in the no episiotomy group with 2<sup>nd</sup> stage duration above 1hour had 89.7% perineal lacerations including massive lacerations of grade 3 while patients with 2<sup>nd</sup> stage duration shorter than 60min had 84.5% perineal tears with no massive tears ( $p=0.4$ ) [19].

Suto et al., did retrospective research in Tokyo, Japan, with 1521 women who gave birth naturally without the need of any medical interventions (epidural, episiotomy, or instrumental delivery). Only 0.1% of third-degree lacerations were recorded, with intact perineum rates of 49.5% in nulliparous women and 69.9% in multiparous women (one case). Another study done by Steiner et al., Mediolateral episiotomy was discovered to be an independent risk factor for third- and fourth-degree perineal lacerations, even in life-threatening circumstances like shoulder dystocia, instrumental deliveries, posterior presentations, fetal macrosomia, and unsettling fetal heart rate, according to a study that included 168,077 vaginal births at the University of Soroka Medical Centre, Israel [20].

Regarding vaginal and paraurethral injuries, In our study 8% paraurethral tears were noted in the routine episiotomy group versus 18% in the no episiotomy group ( $p=0.028$ ). 100% Vaginal tears were noted in the routine episiotomy group versus 86% in the no-episiotomy group ( $p=0.04$ ). Deshwal et al., concluded that The results of regular episiotomy usage are not superior to those of limited use. They made the argument that regular usage is damaging to the point that a certain percentage of women who would have suffered minimal or no damage had surgery instead. They discovered that there was no statistically substantial correlation between the vaginal and paraurethral tears seen in 14% of primigravidae who had normal episiotomy and 22.22% of those who underwent restricted episiotomy. Regarding need for suturing and operative time. In our study, operative timing and suturing requirement was less in no episiotomy group as compared to routine group but the difference was statistically insignificant ( $p=0.426$ ). Although, Deshwal et al., stated that the Requirement of suturing was far less in restrictive group (20%) as compared to routine group (100%) [21].

Albers et al., concluded that It was able to attain a high rate of intact perineum and prevent episiotomy.

An unbroken perineum rate of almost 65% was reported in a larger group of 1,176 women who gave birth naturally without episiotomies, with just 20% of perineal sutures required [22].

### Conclusion:

The study shows that the use of the limited vaginal Episiotomy is safe for both mother and child as long as it is applied by people in the field of obstetrics with experience. Episiotomy can be used in cases where the child is tired during childbirth or when there is a wound in the perineum that continues to expand towards the anus, in order to redirect the wound to prevent major injuries and long-term complications.

### References

- 1- ALBERS L.L., SEDLER K.D., BEDRICK E.J., TEAF D. and PERALTA P.: "Factors related to genital tract trauma in normal spontaneous vaginal births". *Birth*, 33: 94-100, 2006.
- 2- American College of Obstetricians and Gynecologists: Practice Bulletin number 71. "Episiotomy. Clinical Management Guidelines for Obstetrician-Gynecologists" *Obstet-Gynecol.*, 107 (4): 957-62, 2006.
- 3- BELIZAN J., CAMPODONICA L., CARROLI G. and GONZALEZ L.: "Routine vs selective episiotomy: A randomised controlled trial. Argentine Episiotomy Trial Collaborative Group" *Lancet*, 342 (8886-8887): 1517-8, 1993.
- 4- BLONDEL B., LELONG N., KERMARREC M. and GOFFINET F.: "Trends in perinatal health in France between 1995 and 2010": Results from the national perinatal surveys. *J. Gynecol. Obstet. Biol. Reprod (Paris)*, 41: 151-66, 2012.
- 5- CATHRIN PATERSON S.T. and G. SAUNDERS JANE WADSWORTH: "The characteristics of the second stage of labour in 25 069 singleton deliveries in the North West Thames Health Region, 1988", *BJOG* <https://doi.org/10.1111/j.1471-0528.1992>.
- 6- CATLING-PAULL C., CODDINGTON R.L., FOUREUR M.J. and HOMER C.S.: "Publicly funded homebirth in Australia: A review of maternal and neonatal outcomes" over 6 years. *Med. J. Aust.*, 16; 199 (11): 743, 2013.
- 7- CUNNINGHAM F.G., MCDONALD P.C., GANT N.F., LEVENO K.J. and GILSTRAP L.C. III: *Williams Obstetrics*. 21<sup>st</sup> edn, New York: McGraw-Hill Companies Inc., 2001.
- 8- DANIELSSON I., SJOBERG I., STENLUND H. and WIKMAN M.: "Prevalence and incidence of prolonged and severe dyspareunia in women": Results from a population study. *Scand J. Public Health*, 2; 31: 113-118, 2003.
- 9- DANNECKER C., HILLEMANN S.P., STRAUSS A., HASBARGEN U., HEPP H. and ANTHUBER C.: "Episiotomy and perineal tears presumed to be imminent: randomized controlled trial". *Acta. Obstet. Gynecol. Scand*, 83: 364-8, 2004.

- 10- FRITEL X., SCHAAL J.P., FAUCONNIER A., BERTRAND V., LEVET C. and PIGNÉ A.: "Pelvic floor disorders 4 years after first delivery: A comparative study of restrictive versus systematic episiotomy. *BJOG*, 115 (2): 247-52, 2008.
- 11- GRAHAM I.D., CARROLI G., DAVIES C. and MEDVES J.M.: Episiotomy rates around the world: An update. *Birth* (Berkeley, Calif.), 32 (3): 219-223, 2005.
- 12- World Health Organization, Department of Reproductive Health and Research: "Care in normal birth: A practical guide". WHO/FRH/MSM/96.24, 1996.
- 13- AMORIM M., CAUTINHO I.C., MELO I. and KATZ L.: "Selective episiotomy vs implementation of a none-episiotomy protocol", *Reproductive Health Journal*, 24: 14: 135, 2017.
- 14- CARROLI G., JIANG H., QIAN X. and GARNER P.: "Selective versus routine use of episiotomy for vaginal birth". *Cochrane Database Syst. Rev.*, 2:CD000081, 2017.
- 15- MELO I., KATZ L., COUTINHO I. and AMORIM M.M.: Selective episiotomy vs. implementation of a non episiotomy protocol: A randomized clinical trial. *Reprod Health*, 11: 66, 2014.
- 16- THACKER S. and BANTA H.: Benefits and risks of episiotomy: An interpretative review of the English language literature, 1860-1980. *Obstet. Gynecol. Surv.*, 38: 322-38, 1983.
- 17- GABBE S.G. and DELEE J.B.: The prophylactic forceps operation. 1920. *Am. J. Obstet. Gynecol.*, 187: 254, 2002.
- 18- PÉREZ D'GREGORIOR: Obstetric violence: A new legal term introduced in Venezuela. *Int. J. Gynaecol. Obstet.*, 111: 201-2, 2010.
- 19- MARIJA S., SVEN C., GUNNAR P., ANNA S. and OLOF S.: "Duration of second stage of labor and instrumental delivery as risk factors for severe perineal lacerations: Population-based study" *BMC Pregnancy Childbirth.*, 17: 72, 2017.
- 20- SUTO M., KENJI T., CHIZURU M. and MITSUAKI M.: "Prevalence of Perineal Lacerations in Women Giving Birth at Midwife-Led Birth Centers in Japan: A Retrospective Descriptive Study", *Journal of midwifery & women's health*, 60 (4): 419-27, 2015.
- 21- DESHAWL, RAO S. and PRAJWAL S.: "Comparison of use of restrictive episiotomy in primigravidae undergoing vaginal birth at a tertiary care hospital". *International journal of reproduction, contraception obstetrics and gynecology*, 6 (5): 1770-1776, 2017.
- 22- ALBERS L.L., SEDLER K.D., BEDRICK E.J., TEAF D. & PERALTA P.: "Factors related to genital tract trauma in normal spontaneous vaginal births". *Birth*, 33: 94-100, 2006.

## مقارنة بين القس الروتينى المهبلى والاختيارى فى البكارى وقت الولادة

قس العجان هو مصطلح يستخدم لوصف عملية جراحية (بسيطة) تتم عادة باستخدام المقص الجراحى لتوسيع فتحة المهبل وقت ولادة رأس الطفل ويكون اتجاه القس من أسفل المهبل متجهاً إلى الاسفل بزواوية مائلة ستون درجة إلى اليمين أو اليسار وذلك لتيسير عملية الولادة ويصدق البعض بأنها تحمى الأم من أصابة منطقة الشرج بجروح وقت الولادة.

وبالرغم من كل الأدلة التى تؤيد استخدام القس المهبلى المبرر الاستخدام الروتينى لهذه العملية، فهو لا يوجد دليل واضح على فوائد تلك العملية فى أى موقف معين.

فى هذه الدراسة تم توزيع الحالات عشوائياً على مجموعتين لدراسة النتائج التى تخص سلامة الأم والطفل فى حالتى استخدام وعدم استخدام القس المهبلى فى البكارى. وذلك تم بعد أخذ أذن المرضى فى ادراجهم ضمن المشاركين فى الدراسة.

تم جمع مئتان واثنان حالة وتم توزيعهم على المجموعات حيث أن المجموعة الأولى كانت تخص القس الروتينى وتكونت من مائة حالة أما المجموعة الأخرى كانت تتكون من مائة واثننتين حالة منع فيهم القس المهبلى إلا فى حالات الضرورة التى تم تجديدها قبل بدئ البحث.

أظهرت النتائج أن نسبة الاصابات فى العجان والمهبل وفتحة البول كانت أقل فى مجموعة أسلوب القس المهبلى المحدود عن مثيلاتها فى مجموعة القس المهبلى الروتينى ولكن كانت نسبة الإصابات المصنفة بالغة فى مجموعة أسلوب القس المهبلى المحدود حوالى ضعف مثيلاتها فى مجموعة القس المهبلى الروتينى مع العلم أن أعداد تلك الاصابات كانت ضئيلة فى كلتا المجموعتين.

وعند أخذ الظروف الأخرى مثل العمر ومدة الجزء الثانى من الولادة ووزن الطفل فى الاعتبار كمؤثرات على ناتج الاصابات فى العضو الانثوى فى كل واحدة من المجموعات، تم الملاحظة أن الامهات نواتى الاعمار الثامنة عشر والتاسعة عشر كانوا أصحاب النصيب الأقل من الاصابات فى مجموعة أسلوب القس المهبلى المحدود مقارنة لمن هو فرق العشرين. وذلك لم يكن الوضع فى مجموعة القس المهبلى الروتينى حيث أن جميع الحالات تم قس العجان لهم بطريقة روتينية.

بالنسبة إلى الامهات الاتى مكثن فى الجزء الثانى من الولادة أكثر من ستون دقيقة، فقد كانت الجروح فيهن أكثر من حيث النسبة والتصنيف عن اللواتى استغرقن أقل من تسعة وخمسون دقيقة.

أما بما يتعلق بوزن الطفل، فإن الامهات أصحاب الأطفال ما فوق ثلاثة الاف جرامات كانوا أصحاب النصيب الأكبر من الإصابات من حيث النسبة أو التصنيف.

المستدل من البحث : تبين من الدراسة أن استخدام استراتيجية القس المهبلى المحدود آمنه لكل من الأم والطفل طالما تم تطبيقها بأشخاص فى المجال طب التوليد نوات خبرة، فى أمهات كان تطور الولادة منتظم على الجداول الزمنية المسموحة بشرط أن تكون نبضات قلب الطفل لم توضح أى علامة تحذيرية أثناء الولادة وأن استخدام الولادة المميكنة غير محتسب فى التوقعات.

ويمكن استخدام القس فى حالتى تعب الطفل أثناء الولادة أو عند وجود جرح فى العجان مستمر فى التمدد فى اتجاه فتحة الشرج وذلك لإعادة توجيه الجرح منعاً لحدوث جروح عظيمة ومضاعفات طويلة المدى.