

# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكرو فيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحتفظ هذه الأقراص المدمجة بعيدا عن الغبار



**COMPARISON OF DIFFERENT TECHNIQUES FOR  
PERINEAL SKIN CLOSURE DURING MEDIOLATERAL  
EPISIOTOMY REPAIR:  
A Randomized Controlled Study**

*Thesis*

Submitted for partial fulfillment of Master Degree  
in obstetrics & gynecology

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# LIST OF ABBREVIATIONS

Abb.	Full term
<i>ACOG</i> .....	The American College of Obstetricians and Gynecologists
<i>B.d</i> .....	Twice Daily
<i>BMI</i> .....	Body Mass Index
<i>cm</i> .....	Centimeter
<i>CI</i> .....	Confidence interval
<i>EAS</i> .....	External Anal Sphincter
<i>FIGO</i> .....	The International Federation of Gynaecology and Obstetrics,
<i>GA</i> .....	Gestational Age
<i>IAS</i> .....	Internal Anal Sphincter
<i>Gm</i> .....	Grams
<i>hrs</i> .....	Hours
<i>Mg</i> .....	Milligrams
<i>Mcg</i> .....	Micrograms
<i>MMC</i> .....	Migrating Motor Complex
<i>ml</i> .....	Milliliters
<i>mm</i> .....	Millimeters
<i>Min</i> .....	Minutes
<i>Ms</i> .....	Muscles
<i>Mths</i> .....	Months
<i>NAS</i> .....	Non-Absorbable Sutures
<i>No.</i> .....	Number
<i>NICE</i> .....	The National Institute for Health and Care Excellence
<i>NY</i> .....	New york
<i>RCOG</i> .....	Royal College of Obstetricians and Gynecologists
<i>RCT</i> .....	Randomized Controlled trial
<i>RR</i> .....	Relative Risk
<i>SD</i> .....	Standard Deviation
<i>SPSS</i> .....	Statistical Package for Social Sciences
<i>T.d</i> .....	Three times daily
<i>USA</i> .....	United States of America
<i>VAS</i> .....	Visual Analogue Scale
<i>Vs</i> .....	Versus
<i>WHO</i> .....	World Health Organization
<i>Wks</i> .....	Weeks
<i>Yrs</i> .....	Years

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# ***Protocol***



## **PROTOCOL OF A THESIS FOR PARTIAL FULFILMENT OF MASTER DEGREE IN OBSTETRICS & GYNAECOLOGY**

**Title of the Protocol:** Comparison of different techniques for perineal skin closure during mediolateral episiotomy repair: a randomized controlled trial

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**What is already known on this subject? AND  
What does this study add?**

Episiotomy repair was done traditionally via continuous non-locking suture technique for the repair of the vagina, perineal muscles and skin. More recently alternative closure measures have been described like adhesive tapes and surgical glue with variable results. Some studies showed that they were associated with less pain scores compared with continuous suturing. Studies comparing continuous and interrupted suturing found no difference in pain scores, while other studies reported less pain scores using continuous suturing.

This study is the first to compare three different types of perineal skin closure; Subcuticular suturing, surgical glue and adhesive tapes in mediolateral episiotomy repair.

**1. INTRODUCTION**

Episiotomy is the surgical enlargement of the posterior aspect of the vagina by an incision to the perineum during the last part of the second stage of labor. The incision is performed with scissors or scalpel and is typically midline (median) or mediolateral in location **(Carroli and Mignini, 2009)**. The use of episiotomy decrease trauma to the fetus, decrease the frequency of extensive perineal tears, and protect the soft maternal tissues, yet disagreement persists about its actual effectiveness **(Delancey et al, 2008)**.

Episiotomy benefits are that; Allow more space for operative or manipulative deliveries, such as forceps, shoulder dystocia or breech delivery **(NICE, 2007)**, Prevent damage of the fetus during a face or breech presentation, or during instrumental delivery and shorten the second stage of labour for fetal distress or maternal medical condition **(RCOG, 2005)**. There are a variety of



methods for performing an episiotomy, but only mediolateral and midline techniques are the most commonly used **(NICE, 2007)**.

Ninety-two percent of women delivered with an episiotomy will complain of perineal pain in the postpartum period and approximately 20% of women still have complaints after three months **(Andrews et al., 2008)**.

With regards to dyspareunia following childbirth, most of the women (85.7%) who had resumed sex by 12 months postpartum experienced pain during first vaginal sex after childbirth. Dyspareunia was reported by 44.7% of women at 3 months postpartum, 43.4% at 6 months, 28.1% at 12 months and 23.4% at 18 months postpartum. Of the women who reported dyspareunia at 6 months postpartum a third (32.7%) reported persisting dyspareunia at 18 months postpartum **(McDonald et al., 2015)**.

The routine use of episiotomy is not recommended by many publications despite its prophylactic use widely. Women having episiotomy at their first delivery were found to have a greater number of severe perineal lacerations than those without prior episiotomy (4.8 versus 1.7 percent) and more second-degree lacerations (51.3 versus 26.7 percent) at the time of subsequent delivery **(Alperin et al, 2008)**.

Postpartum episiotomy dehiscence is a rare complication of vaginal delivery. Infection rates in episiotomy wounds are surprisingly low; however, it remains the most common cause of wound dehiscence **(Kamel and Khaled, 2014)**. Of A total of 104,301 deliveries were assessed for breakdown of perineal laceration. Only 144 (0.13%) could be identified **(Jallad et al, 2016)**.

The perineum was always an area considered unsuitable for the use of adhesive materials due to the increase in moisture associated with this area **(Bruns and**

**Worthington, 2000).** However, recently there have been several studies comparing the use of adhesive materials for perineal skin closure with traditional subcutaneous sutures, with shorter duration of repair with adhesives but a similar rate of complications (**Mota et al., 2009**).

In an effort to reduce procedure-related morbidity and improve cosmesis, there have been various attempts to modify and improve the technique of episiotomy (**Seijmonsbergen et al., 2015**). These range from the use of hyaluronidase injections to non-suturing of perineal skin (**Zhou et al., 2014**). Recent advances have given us more options such as tissue adhesives with reported advantages as negligible histotoxicity, improved cosmesis and shorter time for repair (**Sumit et al., 2016**).

## **2. Aim of the work**

This study aims to assess efficacy and safety of various cosmetic techniques (subcuticular suturing, surgical glue, adhesive tapes) for perineal skin closure during mediolateral episiotomy repair

### **Research question:**

In women having mediolateral episiotomy during spontaneous vaginal delivery, are alternative cosmetic closure measures associated with increased incidence of wound dehiscence than suturing?

### **Null hypothesis:**

There is no difference between suturing and alternative types of cosmetic perineal skin closure regarding incidence of wound complications in women having only mediolateral episiotomy during spontaneous vaginal delivery.