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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

## قسم

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## A Randomized Trial of Continuous Versus Interrupted Sutures for Perineal Repair after Delivery

A protocol of thesis submitted for partial fulfillment of Master
Degree
In obstetrics and Gynecology

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## Introduction

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Eighty-five percent of women who have a spontaneous vaginal birth will have some form of perineal trauma, and up to 69% will need to have sutures (McCandlish et al., 1998).

Perineal repair is one aspect of childbirth that affects literally millions of women throughout the world and can result in long-term maternal morbidity. In the United Kingdom approximately 750,000 women give birth each year and of these approximately 70% will sustain perineal trauma during childbirth and will require stitches (Sleep 1984). The majority of women experience some short term discomfort or pain following perineal repair and a further 15 - 20% will continue to have long term problems such as superficial dyspareunia (Glazener 1995).

Maternal factors that may contribute to the extent of trauma sustained during childbirth are ethnicity, age, tissue type and nutritional state in the pregnancy years (**Renfrew et al., 1998**). Other risk factors include parity, fetal birth weight greater than 4000 g, instrumental delivery, direct

occipitoposterior position and precipitate birth (Wood et al., 2000).

Surgical repair of lacerations in the genital area is performed by obstetricians according to extent of trauma. Trauma involving the vaginal mucosa, perineal skin and superficial perineal muscles are defined as first- or second-degree injuries. Lacerations involving the anal sphincter are defined as third-degree tears and of the anal mucosa as fourth-degree tears (Sultan & Thaker 2002).

Obstetricians increasingly face women who wish to have a caesarean section due to fear of genital tract injuries or following previous childbirth-related trauma (Wagner 2000). Short and long-term maternal morbidity associated with perineal repair can lead to major physical, psychological and social problems, affecting the woman's ability to care for her new baby and other members of the family Complications depend on the severity of perineal trauma and on the effectiveness of treatment. The type of suturing material, the skill of the operator, and the technique of repair are the 3 main factors that influence the outcome of perineal repair (Sleep 1991).

The procedure of suturing perineal trauma following childbirth may have a significant effect on the extent and degree of morbidity experienced by women both in the short and long-term. However, there are only a small number of randomized controlled clinical trials which compare the effects of different suturing techniques on the extent of maternal morbidity associated with perineal repair (**Fleming 1990**).



## Aim of the Work

## Aim of the work:

To compare the effects of continuous versus interrupted sutures as regard short term postpartum maternal morbidity following perineal repair after vaginal delivery regarding wound infection, wound healing, amount of analgesia and dyspareunia.

## Study design:

A Randomized trial of ladies who will give birth in Ain Shams maternity Hospital and in Damietta Specialized Maternity Hospital

#### Selection criteria:

## A) Inclusion criteria

- 1- Pregnancy more than 37 weeks.
- 2- Second-degree perineal tear or episiotomy.

### B) Exclusion criteria

- 1- Third and fourth degree perineal tear.
- 2- Instrumental vaginal delivery.
- 3- Previous perineal surgery.
- 4- Anemia with hemoglobin level < 9 g/dl.
- 5- Diabetes millutes
- 6- Coagulation abnormalities.
- 7- Postpartum hemorrhage.
- 8- Delivery conducted outside the hospital.

#### **Patient and methods:**

Two hundred pregnant women with the previous selection criteria who will have a second-degree perineal tear or episiotomy in the second stage of labor in Ain Shams Maternity Hospital and Damietta Specialized Maternity Hospital will be chosen to participate in the study after obtaining a verbal consent. They will be randomly allocated into two groups A and B, randomization will be through sealed opaque envelop.

## The following steps will be done:

1- Women will be placed in the lithotomy position for repair. The standard analgesia for perineal repair will be infiltration analgesia in the wound area using 5–20 ml lignocaine 10 mg/ml.

### 2- Continuous suture technique:

The continuous suturing technique is a loose, continuous nonlocking suture to close the vaginal mucosa and the muscular layer of the perineum. The perineal skin is approximated with the same continuous suture in the subcutaneous tissue a few millimetres under the perineal skin edges, finishing with a terminal knot in the vaginal mucosa in front of the hymenal ring.

## 3- Interrupted suture technique:

The interrupted suture involves placing 3 layers of sutures: a continuous nonlocking stitch to close the vaginal epithelium, commencing at the apex of the

wound and finishing at the level of the fourchette; 3 or 4 interrupted sutures to reapproximate the deep and superficial muscles; and interrupted transcutaneous techniques to close the skin.

- 4- The standard suture material in the study will be absorbable vicryl No.1.
- 5- The time of the intervention will be estimated.
- 6- All women will be followed up for 10 days postpartum for wound healing and wound infection.
- 7- The incidence of dyspareunia will be assessed through a questionnaire answered at two months and four months postpartum.

#### Maternal outcomes:

- 1- The time of wound suturing.
- 2- The number of suture material packets that will be used.
- 3- Wound healing and infection or the need for wound resuturing.
- 4- Incidence of dyspareunia.

## Results:

Statistical analyses will be done by t-test, analysis of variance, and logistic regression, with significance set at P. 0.05.