

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Effect of Rectus Muscle Re-approximation and Postoperative Pain in Women with Previous Cesarean Delivery: A Randomized Controlled Trial

Thesis

*Submitted For Partial Fulfillment Of Master Degree In
Obstetrics & Gynaecology*

By

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2021*

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سَبِّحْ اِنَّكَ لَا تَعْلَمُ لَنَا
اِلَّا مَا عَلَّمْتَنَا اِنَّكَ اَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

سورة البقرة الآية: ٣٢

Acknowledgment

*First and foremost, I feel always indebted to **ALLAH**,
the Most Kind and Most Merciful.*

*I'd like to express my respectful thanks and profound gratitude to **Prof. Dr. Ahmed Abd El Kader Fahmy**, Professor of Obstetrics & Gynecology Faculty of Medicine, Ain Shams University for his keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

*I am also delighted to express my deepest gratitude and thanks to **Prof. Dr. Mohamed Abd El Fattah Elsenity**, Assistant Professor of Obstetrics & Gynecology Faculty of Medicine, Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

*Words can never express my sincere thanks to **My Family** for their generous emotional support and continuous encouragement, which brought the best out of me. I owe them all every achievement throughout my life.*

Marwa Hendy

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List of Abbreviations

Abb.	Full term
CBC	Complete blood picture
CD	Cesarean delivery
CNS	Central nervous system
CSF.....	Cerebrospinal fluid
GABA.....	Gamma-aminobutyric acid
IASP	International Association for the Study of Pain
ICU.....	Intensive care unit
IM.....	Intramuscular
IV.....	Intravenous
NMDA	N-methyl-D-aspartate
NPS	Numerical pain score
NSAIDs	Non-steroidal anti-inflammatory drugs
PCA	Patient-controlled analgesia
SD.....	Standard deviation

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

Title of the Protocol: Effect of Rectus Muscle Re-approximation and Postoperative Pain in Women with Previous Cesarean Delivery: A Randomized Controlled Trial.

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

Most clinicians believe that the rectus muscles reapproximate naturally and suturing them together may cause unnecessary pain when the woman starts to move after surgery. The aim of this prospective double blind randomized controlled trial is to assess the effect of rectus muscle approximation on postoperative pain in women with previous cesarean delivery.

1.INTRODUCTION/ REVIEW

Cesarean sections rate has increased dramatically all over the world. According to the 2014 Demographic and Health survey 52% of Egyptian women give birth by Cesarean Section. (*EDHS, 2015*)

In order to reduce the risk of persistent rectus muscle diastasis and post-operative adhesions after Cesarean section, parietal peritoneal closure and rectal muscle approximation can be done. It is believed that adhesions may result from exposure of an opened intraperitoneal cavity to the sub-fascial space, which can be prevented by approximating the rectus muscle or closing the parietal peritoneum. (*Lyell et al., 2012*)

Most clinicians believe that the rectus muscles reapproximate naturally and suturing them together may cause unnecessary pain when the woman starts to move after surgery. (*Dahlke et al., 2013*)

No randomized trial has evaluated rectus muscle closure versus non-closure. A prospective observational study reported a reduction in dense adhesion formation when the rectus muscles were reapproximated; however, this study did not assess pain or hematoma formation potentially related to this intervention and could not fully adjust for other intraoperative interventions, such as peritoneal closure. (*Lyell et al., 2012*)

The aim of this prospective double blind randomized controlled trial is to assess the effect of rectus muscle

approximation at cesarean delivery on postoperative pain in order to evaluate whether this step should be omitted or routinely performed during cesarean delivery.

2.AIM / OBJECTIVES

In women with previous cesarean delivery, the aim of this prospective double blind randomized controlled trial is to assess the effect of rectus muscle approximation on postoperative pain.

Research Hypothesis:

In women with previous cesarean delivery, rectus muscle approximation increases postoperative pain.

Research Question:

In women with previous cesarean delivery, does rectus muscle approximation increase postoperative pain?

3.METHODOLOGY:

Patients and Methods/ Subjects and Methods/ Material and Methods

Type of Study:

Prospective double blind randomized controlled clinical study.

Study Setting:

The study will be conducted at Ain Shams University Maternity Hospital (operating theatre).

Study Population:

The study will be conducted on women with previous one cesarean delivery attending, Ain Shams University Maternity Hospital for delivery with the following criteria:

Inclusion criteria:

Aged 18-40 years.

At term.

Singleton pregnancy.

With previous one cesarean delivery.

Exclusion criteria:

Active labor.

Chronic analgesia use.

Vertical skin incision at cesarean delivery.

Allergy to opioid or nonsteroidal anti-inflammatory drugs (NSAIDs).

Class III obesity (body mass index $> 40 \text{ kg/m}^2$).

History of any pelvic or abdominal surgery.

Previous pelvic inflammatory disease.

Any medical or psychiatric disorder with pregnancy.

Women who refuses to participate.

. Rectus Muscle laceration.

Sampling Method:

Computer-generated random list.

Sample Size:

The study will be conducted on (340) women; they will be subdivided into 2 groups:

Group I (study group): 170 women to them rectus muscle approximation will be done.

Group II (control group): 170 women to them rectus muscle approximation will not be done.