



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكرو فيلم

# بسم الله الرحمن الرحيم



**HANAA ALY**



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم



## شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

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



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**HANAA ALY**



**Lidocaine Prilocaine Cream versus Lidocaine  
Injection on Reduction of Perineal Pain during  
Perineal Tears Repair after Childbirth:  
A Randomized Clinical Trial Study**

Thesis

*Submitted for partial Fulfillment of Master Degree in  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبِحَانَكَ لَا يَلْمُ لَنَا  
إِلَّا مَا عَلِمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

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# *List of Abbreviations*

<b>Abb.</b>	<b>Full term</b>
<i>ACOG</i>	<i>American College of Obstetricians and Gynecologists</i>
<i>ACTH</i>	<i>Adrenocorticotropic hormone</i>
<i>ADM</i>	<i>Adrenomedullin</i>
<i>ATP</i>	<i>Adenosine triphosphate</i>
<i>CAMK</i>	<i>Calcium / calmodulin-dependent enzyme</i>
<i>cAMP</i>	<i>Cyclic adenosine monophosphate</i>
<i>CAPs</i>	<i>Contraction-associated proteins</i>
<i>CGRP</i>	<i>Calcitonin gene-related peptide</i>
<i>CRH</i>	<i>Corticotropin releasing hormone</i>
<i>CSE</i>	<i>Combined spinal epidural</i>
<i>DHEAS</i>	<i>Dehydroepiandrosterone sulfate</i>
<i>E2</i>	<i>Estradiol</i>
<i>EAS</i>	<i>External anal sphincter</i>
<i>FHR</i>	<i>Fetal heart rate</i>
<i>GBS</i>	<i>Group B streptococcus</i>
<i>GTP</i>	<i>Guanine nucleotide-binding proteins</i>
<i>Hb%</i>	<i>Hemoglobin concentration</i>
<i>HIV</i>	<i>Human immunodeficiency virus</i>
<i>HSG</i>	<i>Hysterosalpingography</i>
<i>IAS</i>	<i>Internal anal sphincter</i>
<i>IUD</i>	<i>Intrauterine device</i>
<i>IV</i>	<i>Intravenous</i>
<i>LAST</i>	<i>Local anesthetic systemic toxicity</i>
<i>LP</i>	<i>Lidocaine prilocaine</i>
<i>LTCCs</i>	<i>L-type calcium channels</i>
<i>MLCK</i>	<i>Myosin light chain kinase</i>
<i>MMP</i>	<i>Matrix metalloproteases</i>
<i>NO</i>	<i>Nitric oxide</i>

## *List of Abbreviations (Cont...)*

<b>Abb.</b>	<b>Full term</b>
<i>NSAIDs</i> .....	<i>Nonsteroidal anti-inflammatory drugs</i>
<i>PCA</i> .....	<i>Patient-controlled analgesia</i>
<i>PEE</i> .....	<i>Preeclampsia</i>
<i>PG</i> .....	<i>Prostaglandins</i>
<i>PGF2<math>\alpha</math></i> .....	<i>Prostaglandins F2 alpha</i>
<i>PKC</i> .....	<i>Protein kinase C</i>
<i>PTHrP</i> .....	<i>Parathyroid hormone-related peptide</i>
<i>RCOG</i> .....	<i>Royal College of Obstetricians and Gynaecologists</i>
<i>Rh</i> .....	<i>Rhesus factor</i>
<i>TENS</i> .....	<i>Transcutaneous electrical nerve stimulation</i>
<i>TIMPs</i> .....	<i>Tissue inhibitors of matrix metalloproteases</i>
<i>US</i> .....	<i>Ultrasound</i>
<i>VAS</i> .....	<i>Visual analogue scale</i>
<i>VIP</i> .....	<i>Vasoactive intestinal peptide</i>
<i>WHO</i> .....	<i>World Health Organization</i>

## INTRODUCTION

Pain of perineal trauma is considered one of the most health problems. Perineal trauma refers to any damage to the genitalia during vaginal delivery either spontaneously or due to episiotomy (*Thiagamoorthy et al., 2013*).

Different methods are applied to reduce pain during labor and the pain caused by episiotomy. Some of these methods include non-pharmaceutical methods such as hot packs, cold water compresses, and massage of the perineum, and pharmaceutical methods such as the use of local anesthetics (lidocaine gel or spray, lidocaine injection with or without vasoconstrictor). The most commonly used method is the injection of topical anesthetic. On the other hand, some other medical specialties have reported that the use of topical products such as sprays, gels, and creams/ointments are good alternatives to injectable anesthetics (*Cuomo et al., 2015*).

Topical analgesia means localized delivery of drug to the skin for pain relief through a local action on the peripheral sensory nerves and adjacent tissues. They carry many advantages as inducing a local effect without considerable systemic absorption, safety, ease of use and effectiveness (*Franchi et al., 2009*).

Lidocaine prilocaine (LP) cream is an oil/water emulsion in which the oil phase consists of eutectic mixture of two different anesthetics: lidocaine 2.5% and prilocaine 2.5% in a ratio of 1:1 by weight. It is rapidly absorbed from the genital mucosa with an onset of action 5- 10 min from application. Its use was extensively studied in minor gynecological procedures as office hysteroscopy, intrauterine device insertion (IUD) and hysterosalpingography (HSG) with proved analgesic effect (*Abbas et al., 2017*).

This cream has trivial side effects, which include tingling, coldness and warmth of the skin, pallor or redness of the skin, and swelling. Allergic or systemic reactions of the skin (rash or hives) are among the rare side effects. EMLA Cream is used widely in small pediatric, dermatology, and surgeries (*Kargar et al., 2016*).

## AIM OF THE WORK

This study will compare between lidocaine prilocaine cream and lidocaine injection on reduction of perineal pain during repair of perineal tears in women after childbirth.

### **Research Hypothesis:**

During perineal repair in women with normal vaginal delivery, lidocaine prilocaine cream is more effective than lidocaine injection on reduction of perineal pain.

### **Research Question:**

During perineal repair in women with normal vaginal delivery, is lidocaine prilocaine cream more effective than lidocaine injection on reduction of perineal pain?