شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

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

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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

Prospective Randomized Study Of The Post-operative Analgesic Efficacy Of Transversus Abdominis Plane Block Versus Lumbar Epidural Analgesia After Total Abdominal Hystrectomy And Bilateral Salpingo-Oophorectomy

Thesis

Submitted for partial fulfillment of master degree in
Anesthesia, Intensive Care and Pain managment

By

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Doaa Ragab Ali Abu Ali

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List of Abbreviations

Abb.	Full term
ACTH	*Adreno cortico-trophic hormone*
ADH	*Antidiuretic hormone*
AVP	*Arginine vasopressin*
CNS	*Nervous system*
COX2	*Cyclooxygenase2*
CPR	*Cardiopulmonary resuscitation*
CRH	*Corticotrophin-releasing hormone*
CSF	*Cerebrospinal fluid*
DBP	*Diastolic blood pressure*
DVT	*Deep venous thrombosis*
EA	*Epidural*
ECG	*Electrocardiogram*
FDA	*Food and Drug Administration*
FSH	*Follicle-stimulating hormone,*
IASP	*International Association for the Study of Pain*
IL-	*Interleukin 1*
LH	*Luteinizing hormone,*
LOR	*Loss of resistance*
MBP	*Mean blood pressure*
NSAIDs	*Nonsteroidal anti-inflammatory drugs*
PABA	*Para-aminobenzoic acid*
PACU	*Postanaesthesia care unit*
PC	*Peritoneal cavity*
PDPH	*Post-dural puncture headache*
PGE2	*Prostaglandins E2*
RA	*Rectus abdominis muscle*
SBP	*Systolic blood pressure*
SD	*Standard deviation*

List of Abbreviations (Cont...)

Abb.	Full term

SPSS .....: *Statistical Program for Social Science*
TA .....: *Transversus abdominis muscle*
TAP .....: *Transversus abdominis plane*
TNS .....: *Transient neurologic symptoms*
TSH .....: *Thyroid-stimulating hormone*
VAS .....: *Visual analogue scale*

INTRODUCTION

Postoperative pain management is one of the most important areas of anesthesia, early postoperative mobilization and rehabilitation with minimally associated pain and discomfort is the most desirable quality that has been needed ***(Ayyappan and Santhanakrishnan, 2017).***

Surgical stress response occurring as a result of uncontrolled pain after surgeries severely affects various physiological functions, even leading to increased perioperative morbidity and mortality. Hence, effective post-operative analgesia is an essential component of the care of surgical patients. Regional anesthesia with local anesthetic agents not only inhibits the stress response to surgery but also improves the post-operative outcome ***(Sharma et al., 2018).***

Epidural analgesia and many additives have been used to improve it's efficacy and duration. Intravenous opioid analgesia may cause opioid-related side effects and be associated with inadequate analgesia. Alternative approaches to traditional anesthetic techniques should be investigated. Transversus abdominis plane (TAP) block has been increasingly used in clinical practice in the last decade as an effective and safe analgesic technique for both upper and lower abdominal incisions ***(Canakci et al., 2018).***

Many distinct approaches have been described: an intercostoiliac approach, an oblique subcostal approach and a midaxillary or lateral TAP block performed by placing the probe at or anterior to the midaxillary line between the costal margin and iliac crest. It can provide lower abdominal wall analgesia from the midline to the midclavicular line. Those approaches have been shown to effectively cover pain after abdominal wall surgery ***(Baeriswyl et al., 2018)***.

AIM OF THE WORK

The aim of this work is to study the analgesic efficacy of bilateral ultrasound guided single shot Transversus Abdominis Plane (TAP) Block with bupivacaine compared to single shot lumbar epidural block with magnesium adjuvant to bupivacaine after total abdominal hysterectomy and bilateral salpingo-oophorectomy surgeries.

Chapter 1

PATHOPHYSIOLOGY OF PAIN

An Overview of Pain

The International Association for the Study of Pain (IASP) describes pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage." When unexpected exposure to potentially harmful stimuli occurs, pain manifests as a reflexive withdrawal response accompanied by a motivational reaction, most frequently a feeling of unpleasantness. The sensory process of detecting the "actual or potential tissue damage" is called nociception ***(Kyranou & Puntillo, 2012)***.

Pain is often described as being superficial, deep, or visceral:

- Superficial somatic pain arises from skin, subcutaneous tissues, and mucous membranes and is often described as a sharp, pricking, throbbing, or burning sensation.
- Deep somatic pain is associated with muscles, tendons, joints, or bones and usually has a dull, aching quality and is less well-localized.
- Visceral pain arises from disease or dysfunction of internal organs or their coverings (parietal pleura, pericardium, or peritoneum). True visceral pain is dull, diffuse, and usually midline.

(Kyranou & Puntillo, 2012)