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بالرسالة صفحات لم ترد بالأصل

Postoperative Analgesic Efficiency of Transversus Abdominis Plane Block with and without Magnesium Sulphate after Surgical Repair of Moderate Sized Umbilical Hernia

Thesis

Submitted For Partial Fulfillment of Master Degree In Anesthesia

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2020

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. Mohamed Hossam El Din Hamdy Shokeir,*** *Professor of Anesthesia, Intensive Care and Pain Management 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 ***Dr. Ahmed Mohamed El Sayed El Hennawy,*** *Assistant Professor of Anesthesia, Intensive Care and Pain Management Faculty of Medicine - Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

I am deeply thankful to ***Dr. Simon Halim Armanios,*** *Lecturer of Anesthesia, Intensive Care and Pain Management Faculty of Medicine - Ain Shams University, for his great help, active participation and guidance.*

Shaimaa Mansour

Abstract

Background:

The transversus abdominis plane (TAP) block is a known approach for blocking the abdominal wall neural afferents via the bilateral lumbar triangles of Petit. Different adjuvants have been used to intensify the quality and the duration of local anesthetics. We evaluate adding magnesium sulfate to Bupivacaine as a post operative analgesic after umbilical hernia operation

Aim of the Work:

The aim of this study is to detect the efficacy and safety of magnesium sulphate as an adjuvant to the analgesia offered by local anesthetic in ultrasound guided TAP block in patients undergoing surgical repair of moderate sised umilical hernia. We designed this study to evaluate the effect of adding magnesium sulphate to bupivacaine.25 %in the ultrasound-guided TAP block anesthesia after open appendectomy operation, As regard postoperative pain block and opiod consumption using Visual Analogue scale VAS.

Patients and Methods*:*

Type of Study: Prospective double blinded randomized controlled trial. Study Setting: Ain Shams University Hospital, Cairo, Egypt. Study Period: 6 months. Study Population: the study was carried out on 40 patients who was undergo sirgical Eligibility Criteria: Age: 18-40 years. Physical status: ASA I,II. Both sexes. BMI<35

Results:

In our study we workout on 40 patient with moderate size umbilical hernia 20 patient receive post operative analgesic TAP block with Bupivacaine 0.25% (20ml) and other 20 patient receive post operative analgesic TAP block with Bupivacaine 0.25% 18ml and 200mg (2ml) Mgso4.

Conclusion:

MgSO4 as an adjuvant to Bupivacaine in Ultra-sounded guided TAP block reduces post-operative pain scores, prolong the duration of analgesia and decreases demand for rescue analgesics**.**

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List of Abbreviations

Abb.	Full term
5-HT	5-hydroxytryptamine
ACTH	Adrenocorticotropic hormone
ASA	American Society of Anesthesiologists
CNS	central nervous system
COX2	Cyclooxygenase2
CVS	Cardiovascular system
DCIA	Deep circumflex iliac artery
EO	External oblique muscle
GABA	Gamma-amino butyric acid
IASP	International Association for the Study of Pain
IL-1	Interleukin 1
IO	Internal oblique muscle
L. alba	Linea alba
L. semilunaris	Linea semilunaris
NHS	National Health Service
NMDA	N-methyl-D-aspartate
NRS	Numeric rating scale
NSAIDs	Non-steroidal anti- Inflammatory drugs
PACU	Postoperative anesthesia care unit
PG	Prostaglandins
PGE2	Prostaglandins E2
POP	Postoperative pain
QL	Quadratus lumborum
RA	Rectus abdominis
SSR	Surgical Stress Response
TA	Transversus abdominis
TAP Block	Transversus Abdominis Plane Block
TENS	Transcutaneous Electrical Nerve Stimulation
VAS	Visual analogue scale
VRS	Verbal rating scale

INTRODUCTION

Since the concept of day case surgeries are getting more popular, surgeons and anesthesiologists are trying their best to provide adequate post operative analgesia.

The proper management of post operative pain ensures early ambulation of patients and obviates many post operative Complications ***(Schug, 2011).***

The most common modality for post- operative pain management has remained the parentral use of non-steroidal anti- Inflammatory drugs (NSAIDs) and opioids.

The infiltration of surgical wound with long acting local anesthetic agents has also remained a popular method to take care of immediate post operative pain.

This technique is virtually cost free, rapid and hardly requires any special technical experience or equipment for its use.

But as there are advances in anesthetic techniques, more and more regional blocks are being tried to take care of post operative pain.

The choice of anesthetic block technique depends upon the site of surgical incision proposed. Transversus abdominis plane (TAP) block is a novel approach in which local anesthetic