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MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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MONA MAGHRABY

Ultrasound Guided Quadratus Lumborum Block versus Transversus Abdominis Plane Block in Post-Operative Pain Management after Open Appendectomy

Thesis

Submitted for Partial Fulfillment of MSc Degree
*in **Anaesthesiology, Intensive Care and Pain Management***

By

Mohamed Ayoub Abdel Samee
M.B., B.CH Faculty of Medicine, Ain Shams University

Under Supervision of

Prof. Sahar Kamal Abo-EL Ela
Prof. of Anaesthesia, Intensive Care and Pain Management
Faculty of Medicine-Ain Shams University

Dr. Walid Hamed Nofal
Assistant Prof. of Anaesthesia, Intensive Care and Pain Management
Faculty of Medicine-Ain Shams University

Dr. Adham Magdy Haggag
Lecturer of Anaesthesia, Intensive Care and Pain Management
Faculty of Medicine-Ain Shams University

Faculty of Medicine, Ain Shams University
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Mohamed Ayoub Abdel Samee

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List of Abbreviations

Abb.	Full term
AMPA	α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid
ASA	American Society of Anesthesiologists
ASRA	American Society of Regional Anesthesia and Pain Medicine
COX	Cyclooxygenase
CSF	Cerebrospinal fluid
DBP	Diastolic blood pressure
ECG	Electrocardiogram
EO	External oblique muscle
ERK	Extracellular signal-regulated kinases
GABA	γ-Aminobutyric acid
HR	Heart rate
IASP	International Association for the study of Pain
IO	Internal oblique muscle
IV	Intravenous
LAST	Local anesthetics systemic toxicity
MAO	Monoamine oxidase
MKP	Mitogen-activated protein kinase phosphatase
NIBP	Non-invasive blood pressure
NT	Neurotrophin
PC	Peritoneal cavity
PM	Psoas major

List of Abbreviations cont...

Abb.	Full term
QLB	Quadratus lumborum block
RSD	Reflex sympathetic dystrophy
SBP	Systolic blood pressure
SD	Standard deviation
SpO_2	Oxygen saturation
SPSS	Statistical package for social sciences
TA	Transversus abdominis
TAP	Transversus abdominis plane
TLR	Toll-like receptor
VAS	Visual Analogue Scale

INTRODUCTION

The transversus abdominis plane (TAP) block has been used for post-operative pain relief in various abdominal surgeries as part of the multimodal analgesic approach ***(McDonnell et al., 2007***). It creates satisfactory somatic analgesia with insignificant or no visceral blockade ***(Abrahams et al., 2010).***

In the TAP, the intercostal (T7-T11), subcostal, and L1 segmental nerves communicate to form the upper and lower TAP plexuses, which innervate the anterolateral abdominal wall, including the parietal peritoneum. Therefore, TAP blockade requires anesthesia of the upper (also known as the subcostal or intercostal) TAP plexus, as well as the lower TAP plexus, located in the vicinity of the deep circumflex iliac artery ***(Hebbard, 2009).***

Quadratus lumborum (QL) block is a posterior abdominal wall block which permits spread of local anaesthetic agent behind the quadratus lumborum muscle into a triangular space known as a lumbar interfascial triangle which lies beside the middle layer of the thoracolumbar fascia ***(Schuenke et al., 2012)***. This interfascial plane is in adjoining proximity with numerous sympathetic fibres and conjoin with the thoracic paravertebral space, thus preceding to a long-standing block with the capability to provide visceral analgesia ***(Kadam et al., 2013).***

Quadratus lumborum block is an emerging technique for peripheral nerve blockade, which generates an analgesic effect by unilaterally blocking spinal nerves from T6–T9 to L1-L3, Considering its wide block range, It has been increasingly used for postoperative analgesia in patients undergoing middle and lower abdominal surgeries, and showed satisfactory results no matter in single injection mode or continuous infusion mode ***(Srinivas, 2018).***

Aim of the Work

The aim of this study is to compare the effect of ultrasound guided unilateral QLB versus ultrasound guided TAP block on post-operative analgesia in patients undergoing appendectomy under general anaesthesia.