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Comparative Study between Bupivacaine Epidural Injection or Intravenous Fentanyl with General Anesthesia for Intra operative Analgesia during Major Abdominal Surgeries

Thesis

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بسم الله الرحمن الرحيم
قُلْ إِنَّ صَلَاتِي
وَنُسُكِي
وَمَحْيَايَ وَمَمَاتِي
للهِ رَبِّ الْعَالَمِينَ
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Maye Mohsen

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List of Abbreviations

Abb.	Full Term
AHCPR	Agency for healthcare policy and research
ASA	American society of Anaesthiologists
BMI	Body Mass Index
BUN	Blood Urea Nitrogen
COX	Cyclo-Oxygenase enzyme
CYP2D6	Cytochrome P 2D6
CVS	Cardiovascular system
CN	Caudate nucleus
CBC	Complete blood count

List of Abbreviations

Abb.	Full Term
Ca	Calcium
CNS	Central nervous system
CPG	Clinical research practice guidance
DRG	Dorsal root ganglion
DR	Dorsal Raphe
ECG	Electrocardiogram
FMRI	Functional magnetic resonance imaging
GABA	Gamma amino butyric acid
5-HT	Seritonin

List of Abbreviations

Abb.	Full Term
HR	Heart rate
IM	Intramascular
IV	Intravenous
INR	International Normalized Ratio
IVRA	Intravenous regional anaesthesia
JCAHO	Joint commission on accreditation of health care organizations
κ	Kappa
LAST	Local anaesthesia systemic toxicity
LA	Local anaesthesia

List of Abbreviations

Abb.	Full Term
Mg	Milligram
Mcg	Microgram
MABP	Mean arterial blood pressure
NRM	Nucleus raphe magnus
NMDA	N-methyl D –aspartic
NIBP	Non invasive blood pressure

List of Abbreviations

Abb.	Full Term
OR	Opoid rotation
PABA	Para amino benzoate
PT	Patient time
PTT	Partial thromboplastin time
PAG	Periaquedactal grey matter
RBS	Random Blood Sugar
RVM	Rostral ventromedial medulla
μ	Mu
δ	Delta
SPA	Stimulation produced analgesia

List of Abbreviations

Abb.	Full Term
SpO2	Oxygen Saturation
SIA	Stress induced Analgesia
SPT	Septal Nucleus
SNRI	Seritonin nor-adrenaline reuptake
TCA	Tricyclic antidepressant
VPL	Ventral postrolateral

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Introduction

Pain relief has significant physiological benefits; hence, monitoring of pain relief is increasingly becoming an important postoperative quality measure. The goal for postoperative pain management is to reduce or eliminate pain and discomfort with a minimum of side effects. Various agents (opioid vs. nonopioid), routes (oral, intravenous, neuraxial, regional) and modes (patient controlled vs. "as needed") for the treatment of postoperative pain exist. Although traditionally the mainstay of postoperative analgesia is opioid based, increasingly more evidence exists to support a multimodal approach with the intent to reduce opioid side effects (such as nausea and ileus) and improve pain scores **(Brennanet al., 2007).**

Epidural analgesia is a well-established technique for managing postoperative pain that has been in use for decades. Studies have shown that the technique has several additional benefits, such as decreased cardiovascular, pulmonary and gastrointestinal morbidity and mortality. These data in combination with international guidelines have led epidural analgesia to be considered the gold standard for pain management after major surgery. Although epidural