بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

Efficacy of Coffee versus Peppermint Oil Intake in Promoting GIT Motility after Cesarean Section;

a Randomized Clinical Trial

Thesis

Submitted for Partial Fulfillment of Master Degree

in **Obstetrics and Gynecology**

By

Amaal Ehab Mostafa

M.B.,B.Ch. Ain Shams University (2012),
Resident of Obstetrics and Gynecology at Manshyet El Bakry General Hospital

Under Supervision of

Dr. Ahmed Adel Tharwat

Assistant Professor Obstetrics and Gynecology
Faculty of Medicine, Ain Shams University

Dr. Nermeen Ahmed Mostafa El Ghareeb

Lecturer of Obstetrics and Gynecology
Faculty of Medicine, Ain Shams University

Faculty of Medicine - Ain Shams University

2020

Acknowledgments

First and foremost, I feel always indebted to ***Allah*** *the Most Beneficent and Merciful.*

I wish to express my deepest thanks, gratitude and appreciation to ***Dr. Ahmed Adel Tharwat****, Assistant Professor Obstetrics and Gynecology, Faculty of Medicine, Ain Shams University, for his meticulous supervision, kind guidance, valuable instructions and generous help.*

Special thanks are due to ***Dr. Nermeen Ahmed Mostafa El Ghareeb****, Lecturer of Obstetrics and Gynecology, Faculty of Medicine, Ain Shams University, for her sincere efforts, fruitful encouragement.*

I would like to express my hearty thanks to all my family for their support till this work was completed.

Amaal Ehab Mostafa

List of Contents

List of Abbreviations

Abb.	Full term
CGRP	*Calcitonin gene-related peptide*
CRH	*Corticotrophin-releasing factor*
CSE	*Combined spinal-epidural anesthesia*
CSs	*Cesarean sections*
CT	*Computed tomography*
CYP1A2	*Cytochrome P450-oxygenases*
DKA	*Diabetic ketoacidosis*
EDA	*Epidural anesthesia*
ESA	*European Society of Anesthesiology*
GERD	*Gastro-esophageal reflux disease*
IBS	*Irritable bowel syndrome*
IBS	*Irritable bowel syndrome*
IL-1	*Interleukins 1*
IL-6	*Interleukins 6*
LOSP	*Lower oesophageal sphincter pressure*
MDCT	*Multidetector CT*
MMC	*Migrating motor complex*
MRI	*Magnetic resonance imaging*
NSAIDS	*Non steroidal anti-intlammatory drugs*
PO	*Peppermint oil*
POI	*Ostoperative ileus*
POI	*Postoperative ileus*
SPA	*Spinal anesthesia*
SPSS	*Statistical Package for Social Sciences*
TNF-α	*Tumor necrosis factor alpha*
VIP	*Vasoactive intestinal peptide*

List of Tables

List of Figures

INTRODUCTION

Cesarean delivery is defined as the birth of a fetus through incisions in the abdominal wall (laparotomy) and the uterine wall (hysterotomy). This does not include removal of the fetus from the abdominal cavity in the case of rupture of the uterus or in the case of an abdominal pregnancy ***(Cunningham et al., 2010).***

Cesarean section is a very common abdominal surgery showing an increasing trend over the last three decades. Recent statistics shows increase of C-section rates by 12.4% from 1990 to 2014. For example, in Egypt, according to latest data, more than half of all women (51.8%) give birth by C-section without much difference between rural and urban areas ***(WHO, 2015).***

Its incidence has been quoted at 13–39%. It is as high as 50% in certain private settings, and China has been cited as having the highest rates of CS in the world. According to the World Health Organization, its acceptable incidence should be 5–15%, but the previous recommendation of 15% CS rate was withdrawn in June 2010. Their official statement read. There is no empirical evidence for an optimum percentage. What matters most is that all women who need CS receive it ***(Hellerstein et al., 2015).***

According to the latest data from 150 countries, currently 18.6% of all births occur by CS, ranging from 6% to 27.2% in

the least and most developed regions, respectively. Latin America and the Caribbean region has the highest CS rates (40.5%), followed by Northern America (32.3%), Oceania (31.1%), Europe (25%), Asia (19.2%) and Africa (7.3%). Based on the data from 121 countries, the trend analysis showed that between 1990 and 2014, the global average CS rate increased 12.4% (from 6.7% to 19.1%) with an average annual rate of increase of 4.4% ***(Betrán et al., 2016).***

Women can have cesarean sections for many reasons such as multiple pregnancy, failure of labor to progress, concern for the baby, problems with the placenta, large baby, breech presentation, maternal infections such as human immunodeficiency virus or herpes, maternal medical conditions such as diabetes or high blood pressure, Maternal request for CS ***(NICE, 2012).***

Patients undergoing cesarean section will be given either general anesthesia, an epidural block, or a spinal block. An epidural block numbs the lower half of the body. An injection is made into a space in the spine in lower back. A small tube may be inserted into this space so that more of the drug can be given through the tube later if needed. A spinal block also numbs the lower half of the body. It is done the same way as an epidural block, but the drug is injected directly into the spinal fluid ***(Staiku et al., 2014).***

Traditionally, patients are not given fluids or food after abdominal surgery until bowel function returns, as evidenced by bowel sounds, passage of flatus or stool, or a feeling of hunger ***(Guo et al., 2015).***

The rationale of this practice is to prevent postoperative nausea, vomiting, distention and other GIT complications. However, withholding oral feedings may lead to intestinal ileus, which can prolong the length of hospital stay and increase the financial burden ***(Iyer et al., 2009).***

Although cesarean section is a major abdominal surgery, it is different from other abdominal surgeries. In cesarean sections patients are well prepared preoperatively especially if the case is an elective CS. Usually the patients are young and in a good health condition. CS is relatively short operation with minimal bowel manipulation. In the past, CS was believed to be equivalent to other major abdominal surgeries and its postoperative management was following similar lines. It was believed that abdominal surgeries including CS limits bowel mobility; thus; a postoperative ileus was feared to be of common incidence. Hence, ambulation was delayed and oral feeding was started only after bowel sounds were audible and patient had passed flatus. It was believed that bowel needs rest after those surgeries and that starting oral feeding will interfere with bowel functions and this belief wasn't only prevalent among the public but even the medical staff believed the same ***(Kaur et al., 2015).***

Masood and his colleagues (2011) found in their study that 61.6% of the doctors in obstetrics and gynecology had the same beliefs that early initiation of diet may lead to ileus and wound disruption whereas 3.4% feared of burst abdomen.

In recent years, with the development of enhanced recovery surgery, the safe and effective promotion of the recovery of gastrointestinal function after surgery and prevention of postoperative complications have caused widespread concern among medical staff. Several interventions aimed at accelerating the recovery of gastrointestinal motility after surgery, including probiotics, ambulation and gum chewing, have been proposed ***(Wallstrom et al., 2013).***

Different factors affect patient's satisfaction. The secure of patient needs is a main factor to improve quality of medical services. Patient's opinion about quality of postoperative care is valuable for managers. Postoperative care and satisfaction of women who underwent a cesarean section is an important aspect and demands due attention, because they are different from other patients and don't have just the role of a patient ***(Adeli et al., 2010).***

Actually they are mothers that should care and breast feed their infant immediately after surgery. Some previous studies have shown early post cesarean feeding is a main factor in women's satisfaction ***(Adeli et al., 2010).***

There is no scientific evidence to withhold oral feeds for a long duration after CS, yet it is the practice in most hospitals. Early oral feeding is claimed to improve patients' satisfaction, helps in early mobilization and results in shortened hospital stay. Cost of oral feeding is much less than the daily cost of intravenous fluids, intravenous sets, cannulas and nursing care ***(Kathpalia 2017).*** So, we need also to evaluate women satisfaction using a reasonable method and to determine which has a better stimulant effect on GIT motility after C.S; coffee or peppermint oil?

AIM OF THE WORK

The aim of the work is to determine which of the following; coffee or peppermint oil has a better stimulant effect on GIT motility after Cesarean section.

Hypothesis:

Null Hypothesis

Administration of coffee can have same efficacy as peppermint oil in promoting GIT motility after cesarean section.

Alternative Hypothesis

Administration of coffee has a better stimulant effect on promoting GIT motility after cesarean section.

Research question:

Which has a better stimulant effect on GIT motility: coffee or peppermint oil?

Aim:

Primary outcomes

Regain of GIT motility after C.S. by auscultation of intestinal sound.

Secondary outcomes

1. Sense of nausea