بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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MONA MAGHRABY

Active Management of the Third Stage of Labor with and without Controlled Cord Traction;

A Randomized Controlled Trial.

Thesis

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in **Obstetrics and Gynecology**

By

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List of Abbreviations

Abb.	Full term
AMTSL	*Active management of third stage of labour*
BMI	*Body mass index*
CCT	*Controlled card traction*
CHAMPION	*Carbetocin hemorrhage prevention*
CI	*Confidence interval*
CONSORT	*CONsolidated Standards Of Reporting Trials*
EBL	*Estimated Blood Loss*
GDG	*Guideline Development Group*
Hct	*Hematocrit*
IM	*Intramuscular*
IQR	*Interquartile range.*
JAFP	*Journal of American Family Physicians*
MD	*Mean Deviation*
MedD	*Median Difference*
MOH	*Major obstetric hemorrhage*
MRP	*Manual removal of placenta*
NE	*Not estimated*
NNH	*Number Need to harm*
NNT.com	*Number Need to treat*
NS	*Non significant*
PPH	*Post-partum hemorrhage*
RCTs	*Randomized controlled trials*
RR	*Risk Ratio*
SD	*Standard Deviation*
VEBL	*Visual estimation of blood loss*
WHO	*World Health Organization*

INTRODUCTION

Post-partum haemorrhage is a major cause of severe maternal morbidity where nearly a third of pregnancy-related deaths are associated with haemorrhage. Most such deaths occur because of uterine atony soon after birth ***(Khan et al., 2006; Carroli et al., 2008)***. In active management, several prophylactic interventions are applied in combination. WHO recommends administration of oxytocin soon after delivery of the baby, controlled cord traction, and delayed clamping and cutting of the cord ***(WHO, 2007)***.

McDonald and Middleton (2008) reported that the risk of post-partum haemorrhage was more than 60% lower with active management than with expectant management. The timing of cord clamping does not seem to play a significant part in blood loss. Side-effects such as increased blood pressure nausea, vomiting, and increased placental retention are generally attributed to the use of uterostonic ergot alkaloids. It has been recommended for use by skilled birth attendants only. However, if traction does not have a meaningful effect on blood loss then it could be omitted and a simplified package focusing mainly on the uterotonic could be recommended ***(WHO, 2012)***.

The three active procedures used in AMTSL reduce the incidence of PPH by approximately 65% compared with expectant management ***(Begley et al., 2011)***. Active management of the third stage of labor, rather than expectant

management, had been proposed for the prevention of PPH. In active management many methods are applied as administration of a uterotonic agent immediately after birth ***(WHO, 2012)***.

Several reviews have been conducted to examine different components of active management, including prophylactic use of oxytocin and/or erogmetrine for the prevention of PPH in the third stage of labor, and timing of cord clamping in term infants ***(McDonald and Middleton, 2008; Westhoff et al., 2013)***. The specific effect of CCT in the third stage of labor was studied by two large randomized controlled trials conducted in low-income and high-income countries. There is currently insufficient evidence of the effectiveness of controlled cord traction (CCT) in AMTSL ***(Gulmezoglu et al., 2012)***.

Statistically, the effectiveness of CCT compared to hands-off management in the third stage of labor for the prevention of PPH was associated with a reduced incidence of PPH, need for manual removal of the placenta, duration of the third stage of labor and mean blood loss. However, the result marginally failed to detect a significant difference regarding severe PPH, rate of need for additional uterotonics and blood transfusion in the CCT group comparison with hands-off management group ***(Du et al., 2014)***.

The efficacy of using prophylactic uterotonics has been shown with a good level of evidence ***(Cotton et al., 2010)***. In a

meta-analysis many trials reported that active management of the third stage of labor is associated with a 60% reduction in the incidence of postpartum haemorrhage compared with expectant management ***(Belgley et al., 2011)***. Controlled cord traction is a component that requires skilled manual training in order to be performed appropriately ***(Miranda et al., 2013)***.

Deneux et al. (2013) reported that the use of controlled cord traction for the management of placental expulsion has no significant effect on the incidence of postpartum haemorrhage and other markers of postpartum blood loss. They believed that there was no evidence to recommend routine controlled cord traction for the management of placental expulsion to prevent postpartum haemorrhage.

Aim of the Work

To determine the specific effect of controlled cord traction in the third stage of labor in the prevention of severe postpartum hemorrhage.