

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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بالرسالة صفحات
لم ترد بالأصل





The Use of Oral Evening Primrose Oil versus Placebo for Ripening of the Cervix in Term Primgravidas (A Randomized Controlled Trial)

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
ACOG	American College of Obstetricians and Gynecologists
BMI	Body Mass index
Ci	Confidence interval
cm	Centimeter
Cs	Caesarean section
DBP	Diastolic Blood Pressure
EvPO /EPO	Evening Primrose Oil
FHR	Fetal heart rate
kg	Kilograms
LMP	Last Menstrual Period
mcg	Microgram
mg	Milligram
NICU	Neonatal Intensive Care Unit
No	Nitric Oxide
PGE2	Prostaglandin E2
PMS	Premenstrual symptoms
PROM	Premature Rupture Of Membranes
PTB	Preterm Birth
RCTs	Randomized Controlled Trials
RR	Relative Risk
SBP	Systolic Blood Pressure
TVUS	Transvaginal Ultrasound
U/S	Ultrasound
WHO	World Health Organization

INTRODUCTION

Ripening of the cervix and uterine contractions are two basic factors of a successful delivery (*Jahdi et al., 2016*). The prelabor condition of the cervix is believed to be one of the most important predictors of successful induction. Predicting induction success is one of the important and challenging issues for the doctor. So it is important to investigate the factors affecting it (*Park et al., 2009*).

Cervical ripening, biochemically and physiologically, simply consists of the breakdown of cervical collagen bundles and the taking up of water by the cervix. Clinically, cervical ripening is manifested by the softening, effacement, anterior rotation, and dilatation of the cervix (*Scott et al., 2002*).

Assessment for the need for cervical ripening prior to induction is accomplished through a Bishop score, which is calculated by assigning a score to cervical dilation, effacement, position, consistency, and fetal station. A Bishop score of less than six indicates the need for a ripening agent prior to induction, and a score that exceeds eight has been associated with successful induction leading to vaginal birth (*Tenore, 2003*).

The Bishop score was developed by Dr. Edward Bishop and was published in August 1964 (*Bishop and Edward, 1964*).

Measurement of cervical length by transvaginal ultrasonography is also a useful independent predictor of successful labor induction and performs better as a method of preinduction cervical assessment than Bishop score when the occurrence of active labor is considered as the final outcome of labor induction (*Yang et al., 2004*).

In women undergoing induction of labor, significant prediction of the likelihood of vaginal delivery within 24 hours and the likelihood of caesarean section are provided by pre-induction cervical length, posterior cervical angle and maternal characteristics. Sonographic parameters were superior to the Bishop score in the prediction of the outcome of induction (*Tan et al., 2007*).

Evening primrose (*Oenothera biennis*) is a native North American flower so named because it blooms in the evening (*Blumenthal, 1997*). Oil extracted from the seeds of the evening primrose contains linolenic acid, gamma linolenic acid, and vitamin E. Gamma linolenic acid is a known precursor of prostaglandin E and several other active substances, and is said to be the constituent of the oil responsible for its therapeutic effects (*Cohen et al., 2000*).

Increases in prostaglandin concentrations activate enzymes that start to break down the extracellular matrix of cervical cells, leading to cervical ripening (*Smith et al., 2007*).

According to a randomized double-blind, placebo-controlled clinical trial done in Philippines, Evening Primrose Oil given 1 capsule thrice daily for 1 week has a significant effect on Bishop score and cervical length by trans-vaginal ultrasound compared to placebo and there was no effect on fetal safety profile monitored by modified biophysical profile and non-stress test. Its use as a cervical priming agent to enhance success rate for vaginal delivery may be considered for healthy term gravidas awaiting onset of labor (*Ty-Torredes and Karen Alessandra, 2006*).

According to another study done in Iran, consumption of evening primrose oil capsules did not show a considerable improvement on Bishop score. It is recommended to do more comparative studies in this field in later weeks of pregnancy due to the conflicts of the studies (*Jahdi et al., 2016*).