TITRATED ORAL MISOPROSTOL SOLUTION COMPARED WITH INTRAVENOUS OXYTOCIN FOR LABOR AUGMENTATION

Thesis

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in Obstetrics and Gynecology

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وأنزل الله عليك
الكتاب والحكمة
وعَلَّمَكَ مَا لَمْ تَكُنْ
تَعْلَمُ وكَانَ فَضْلُ
اللَّهِ عَلَيْكَ عَظِيماً
صدق الله العظيم
سورة النساء الآية
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*First and foremost thanks to **Allah**, the most beneficial and merciful*

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List of Abbreviations

ACOG	American College of Obstetrics and Gynecology
AUC	area under serum concentration
C.I	Confidence interval
cm	centimeter
Cmax	the peak concentration
CS	Cesarean Section
HIV	human immunodeficiency virus
h	hour
ICU	Intensive care unit
IDI	induction-delivery interval
IOL	induction of labor
IUGR	Intra Uterine Growth Retardation
µg	Microgram=1×10^{-6}
min	minute
mIU	Milli international Unit=1×10^{-3} IU
NICE	National Institute for Health and Clinical Excellence
NS	Non-significant
OMS	oral misoprostol solution
ROM	Rupture of membrane
RR	Relative risk
S	Significant
SBS	Simplified Bishop score
SD	Standard deviation
synOT	Synthetic oxytocin
Tmax	Time it takes the drug to reach its maximum concentration
US	United States

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INTRODUCTION

Parturition is the culmination of a period of pregnancy with the expulsion of one or more newborn infants from a woman's uterus. The process of normal childbirth is categorized in three stages of labor: the shortening and dilation of the cervix, descent and birth of the infant, and birth of the placenta **(Wiberg-Itzel et al, 2016).**

Childbirth can be an intense event and strong emotions, both positive and negative, can be brought to the surface. Abnormal and persistent fear of childbirth is known as tokophobia. During the later stages of gestation there is an increase in abundance of oxytocin, a hormone that is known to evoke feelings of contentment, reductions in anxiety, and feelings of calmness and security around the mate **(Meyer. 2007)**. Oxytocin is further released during labor when the fetus stimulates the cervix and vagina, and it is believed that it plays a major role in the bonding of a mother to her infant and in the establishment of maternal behavior. The act of nursing a child also causes a release of oxytocin **(Levine et al, 2016).**

Length of labor varies between women, with first labors lasting on average eight hours (and unlikely to last more than 18 hours), second and subsequent labors lasting on an average five hours (and unlikely to last more than 12 hours). Progress in labor