# VAGINAL DINOPROSTONE VERSUS VAGINAL MISOPROSTOL FOR INDUCTION OF LABOR IN POST - DATED PREGNANCY

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## Introduction

Induction of labor (IOL) is one of the most frequent performed procedures in obstetrics. It is universally accepted that (IOL) is indicated when fetal and maternal outcomes are better than expectant management, which is waiting for spontaneous onset of labor. Before IOL is performed, informed consent should be made with good counselling about the risks and benefits for the method that will be used. Induction of labor is artificial stimulation of uterine contractions before onset of spontaneous labor for effective progressive effacement and dilatation of cervix and ultimately delivery of the feto-placental unit. There are many factors affecting the success of induction like pre-induction bishop score, parity, age of the mother, BMI, gestational age, fetal size and some biochemical markers such as: fibronectin, insulin like growth factor binding protein 1 and activin A. Various methods of induction are available; pharmacological and mechanical. Pharmacological methods use oxytocin, prostaglandin E1 (misoprostol) which can be administered through different routes (vaginal, buccal or sublingual) and dinoprostone which is also available in different forms (tablets, pessary, inserts and Gel).

## Aim of the work

The aim of this study was to compare the safety and efficacy of vaginal dinoprostone and vaginal misoprostol for induction of labor in post-date pregnancy at El-Shatby Maternity University Hospital.

## Patients and Methods

This study was carried out on 370 pregnant women with gestational age 40 weeks or beyond (post-dated pregnancy) of different ages and parities at Elshatby Maternity University Hospital after approval of ethical commitee of Alexandria Faculty of Medicine.

Inclusion Criteria: 1. Pregnant women 40 weeks or beyond with Bishop score ≥ 4. 2. Singleton pregnancy. 3. Cephalic presentation. 4. Adequate Biophysical profile.

After signing their informed consents, all Post-date pregnant (40 weeks of gestation or beyond) females with Bishops score ≥4 was subjected to:

1. History taking for confirmation of date by last menstrual period (LMP) and review by first trimester ultrasound scan report to exclude wrong dating.
2. Physical examination.
3. Ultrasound to detect fetal biometry, amniotic fluid index.
4. Cardiotocography (CTG).

**Group 1:** received 3 mg vaginal Dinoprostone of maximum 2 doses 6 hours apart.

**Group 2:** received 50 µg of vaginal misoprostol of maximum 2 doses 6 hours apart.

## Results

**Table:** Comparison between the two studied groups regarding time needed for success patients.

| Time needed (In Hours) | Group I (Dinoglandin) "n=100" | Group II (misoprostol) "n=106" |
|---|---|---|
| **Range** | 3-36 hrs | 3-30 hrs |
| **Mean** | 11.32 hrs | 9.981 hrs |
| **SD** | 6.457 hrs | 5.569 hrs |
| **t-test** | 1.98 | |
| **p value** | 0.05* | |

t-test = Student t-test  p was significant if ≤0.05  *. = significant difference

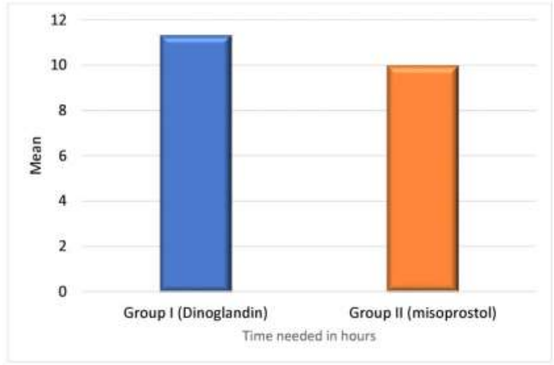


**Figure:** Comparison between the two studied groups regarding time needed for success patients.

## Conclusion

Misoprostol and Dinoprostone vaginal tablets both are safe and effective for cervical ripening and labour induction. The results of our studies showed that misoprostol show a short duration from induction to delivery periods than dinoprostone.