

# *Induction Of Labour By Combined Methods Of Induction-Case Report*

N. Khotivari, P. Machavariani, N Metskhvarishvili, M. Rizvadze, E. Shvelashvili

Tbilisi State Medical University The First University Clinic



**Abstract – The timely onset of labor is an important determinant of perinatal outcome. Induction of labour or the artificial initiation of labour, is a common intervention in modern obstetrics. One of the most common reasons for labor induction is postterm pregnancy (i.e. > 41 weeks of gestation). Pregnant woman G3P2 applied to the TSMU The First University Clinic at 41 weeks, induction of labor was offered to her, by mechanical method – Foleys catheter after written consent. Before and after induction of labour by mechanical method, we evaluated uterine cervix by the same 3 points according to Bishop's scoring system. Since the pregnant woman did not have a regular uterine contractions, after this mechanical method, a medical method of labor induction was offered to her, with the drug Cytotec (misoprostol), to which the pregnant woman again gave her written consent. The specified dose was given 1 time, after which a regular labor was established every 10 minutes 3 times with a duration of 35-40 seconds. The cervix was evaluated according to Bishop's scoring system with 8 points, an amniotomy was performed and the woman gave birth in 5 hours, without complications, the newborn was evaluated with 7/8 points according to the Apgar scoring system. We suggest that Foley catheter in combination with oral misoprostol is an alternative way for induction of labor. The combination of this different methods of induction reduces labor duration, which provide good outcome.**

**Keywords – Bishop, Induction, Apgar, Cytotec.**

## I. INTRODUCTION

The timely onset of labor is an important determinant of perinatal outcome. Induction of labour or the artificial initiation of labour is a common intervention in modern obstetrics. Induction of labor is indicated when the risks to maternal or fetal health outweigh the benefits of continuing the pregnancy (1). One of the most common indications for labor induction is post term pregnancy (i.e. > 41 weeks of gestation). Induction of labour can be done by several methods of: such as medical, natural or mechanical, with the aim of achieving vaginal delivery (2). The process of labor induction often begins with cervical ripening which involves softening and thinning the cervix in preparation for labor and delivery. Different methods are available for cervical ripening and labor induction, including mechanical and/or natural and pharmacological methods. (3) Oxytocin, a hormone that stimulates uterine contractions, is considered less effective for cervical ripening and is typically used alone for labor induction when the cervix is favorable (Bishop's score  $\geq 6$ ) or after cervical ripening with mechanical methods or prostaglandins. (4) The use of oxytocin alone for cervical ripening has been associated with higher rates of unsuccessful vaginal deliveries within 24 hours and increased rates of cesarean delivery compared with the use of prostaglandins. Misoprostol is used for labor induction. Mechanical methods of labor induction (e.g., Foley's balloon catheters, double-balloon catheters, hygroscopic and osmotic dilators) are effective alone but are also commonly combined with pharmacological methods. Oxytocin, both prostaglandin preparations, and balloon catheters are recommended by the American College of Obstetricians and Gynecologists (ACOG) and World Health Organization (WHO) for labor induction(4). Balloon catheter is a thin tube called a catheter, with a balloon on the end is inserted into your cervix and the balloon is then inflated with water. This is called a balloon catheter and is used to apply pressure to your cervix. It helps to open it, preparing it for the next phase of labour. The catheter is

left in place for up to 12 hours then, after the water is taken out from the balloon, the catheter is removed. After the catheter is removed, you will have another vaginal examination to determine the next steps.

### II. CLINICAL CASE:

Pregnant woman G3P2 applied to the TSMU The First University Clinic at 41 weeks, induction of labor was offered to her - by mechanical method – Foleys catheter. The pregnant woman did not have regular uterine contractions, without ruptured membranes. During the entire period of induction of labor, electronic monitoring of the fetal heart rate was carried out. By vaginal examination, the cervix was evaluated according to Bishop's scoring system, cervix were to 3 points found, namely: the dilation of the cervix was to 1 cm (1 point), cervical effacement up to 20% (0 points), the consistency of the cervix was medium (1 point), the cervix was in mid position - (1 points), the fetal head station in -3 plane (0 points)

A mechanical method of induction of labor was offered using a Foleys catheter. After 6 hours catheter was removed because the patient complained of discomfort and feeling of pressure in the vagina. After that, the vaginal status was again assessed, which was again found to be 3 points again, according to Bishop's scoring system, although this time such data were obtained: the cervix was dilated to 2 cm (1 point), the cervical effacement was up to 30% - (0 point), the cervix was in mid position - (1 points), the consistency of the cervix was medium- (1 point), fetal head station at -3 in plane - (0 points)

Since the pregnant woman did not have the regular uterine contractions, after this mechanical method, a medical method of labor induction was offered to her, with the Cytotec (misoprostol), to which the pregnant woman again gave her written consent. The pregnant woman was given Cytotec suspension 25 ml, the specified dose was given 1 time, after which a regular labor was established every 10 minutes 3 times with a duration of 35-40 seconds. During vaginal examination, 3 hours after giving the first dose, the cervix was evaluated by digital examination with 8 points according to Bishop's scoring system, an amniotomy was performed and the woman gave birth in 5 hours, without complications, the newborn was evaluated with 7/8 points according to the Apgar scoring system.

### III. DISCUSSION:

This case report showed that it is possible to achieve vaginal delivery through induction of labor with combination of induction methods such as mechanical (foleys catheter) and a oral misoprostol, in mothers with unfavorable cervix. The use of continuing fetal cardiotocography during this process is crucial to achieve the best maternal and fetal outcomes. The tendency to postterm pregnancy is one of the main indications for cervical ripening. With a gestation age of more than 41 weeks the risk of complications in the fetus increases, such as meconium aspiration, asphyxia and shoulder dystocia. In addition, there is an increased risk of increased perinatal morbidity, mortality, and stillbirth. In this regard, preparation of the cervix in patients with a tendency to post-term pregnancy is very relevant and represents a method of preventing these complications.

By combining different induction methods such as Foleys catheter and mosoprostol, it is possible to shorten the time interval from the ripening of the cervix to labour. For this one case example the undoubted advantage of this combined method of cervical preparation to childbirth are efficiency, low risk of uterine hyperstimulation, fetal distress syndrome, as well as low risk of developing infectious complications. Thus, a combined method of preparing the cervix for childbirth with a tendency to post-term pregnancy effective, safe and reduces time of the birth.

### IV. CONCLUSION

We suggest that Foley catheter in combination with oral misoprostol is an alternative way for induction of labor. The combination of different methods of induction reduces labor duration which provide good outcome. The undoubted advantage of this combined method of cervical preparation to childbirth are efficiency, low risk of uterine hyperstimulation, fetal distress syndrome, as well as low risk of developing infectious complications. Thus, a combined method of preparing the cervix for childbirth with a tendency to post-term pregnancy is effective, safe and reduces time of labour.

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