



A Retrospective Study on the Delivery Outcome among the Term Pregnant Women

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Abstract

Background: Now a day's pharmaceutical or non-pharmaceutical method are use for labor induction. For labor induction oxytocin and prostaglandins are used mostly labor induction. Recently use of misoprostol in term pregnancy is exceptionally helpful for the better result amid conveyance.

Objective: The reason for the present investigation was to see the conveyance result among the term pregnant ladies.

Methodology: This accomplice think about was completed in the Department of Obstetrics and Gynecology at Proactive medical college and hospital, Narayanganj during the period from 1st February 2016 30th January 2018. Primi or second gravida patients with the gestational age between 38 weeks to 42 weeks in singleton pregnancy with cephalic introduction and not in labor who desired conveyance purposes amid the examination time frame at any age were chosen as study populace. After appropriate choice of the cases, acceptance of work (IOL) was finished by applying Tab Misoprostol 50mcg in the back vaginal fornix. Motivation behind enlistment of work was fruitful when vaginal conveyance happened with no untoward reactions and with no careful impedance.

Result: Out of 63 pregnant ladies 23 (40%) patients had negative Bishops' score with 3-5 and 40 (60%) patients had positive Bishops' score with 6-10. This table demonstrates that 40 patients had positive pre-acceptance cervical score, among them 80% had conveyed vaginally and 20% had experienced LUCS. 23 patients had horrible cervix, among them 58% experienced vaginal conveyance and 42% experienced LUCS. Out of all investigation populace 60% of study populace who were primigravide had vaginal conveyance in 67% cases and cesarean segment in 33% cases and among 40% second gravida cases vaginal conveyance was 80% and cesarean conveyance was 20%.

Conclusion: In conclusion the utilization of misoprostol amid term pregnancy is essentially related with the typical conveyance.

Keywords: Pharmaceutical, Labor induction oxytocin, Prostaglandins.

I. Introduction

Labor induction is the process or treatment that stimulates childbirth and delivery. Inducing labor can be accomplished with pharmaceutical or non-pharmaceutical methods.^[1] There are different

methods of induction of labor like medical, surgical and combined. There is no ideal accepted method of induction of labor. Currently oxytocin and prostaglandins are randomly used for induction of labor.^[2] Oxytocin is the drug of

choice for labor induction when the cervix is favourable. At present oxytocin is the prime labor induction drug available in our country.^[3] Prostaglandins are hormones naturally present in the uterus that cause contractions during labor. Currently, a prostaglandin (Misoprostol), a synthetic Prostaglandin E1 analogue marketed as a gastrointestinal mucosal protection agent is a safe, easily available, efficacious and inexpensive for use in cervical ripening and labor induction. Latest studies show that, prostaglandin is superior to oxytocin as prostaglandin is local hormone which softens the cervix directly. In fact, prostaglandin provides an excellent alternative to conventional oxytocin for induction of labor. Misoprostol, sold under the brand name Cytotec among others, is a medication used to start labor, cause an abortion, prevent and treat stomach ulcers, and treat postpartum bleeding due to poor contraction of the uterus. It is taken either in the cheek, under the tongue, or placed in the vagina.^[4] Misoprostol is a shoddy and stable PGE1 simple that is dynamic both by the vaginal and oral course of organization for cervical maturing and acceptance.^[4] When it is given orally, it is quickly consumed by the gastrointestinal tract and experiences de-esterification to its free corrosive, which is in charge of its clinical action. The pinnacle focus and half-existence of misoprostol corrosive, the dynamic metabolite, are 12 and 21 minutes, individually.^[5]

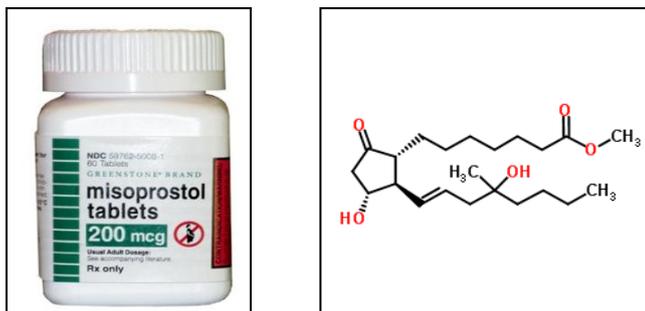


Figure 1: Shows Misoprostol and its chemical structure ^[6]

The aggregate fundamental bioavailability of vaginally controlled misoprostol is three times more prominent than that of orally directed misoprostol.^[7] In Bangladesh, misoprostol is accessible as tablet frame, each containing

200mcg.). In 10% of all pregnant women have an unfavourable cervix and require labor to be induced^[8] Therefore induction of labor to be effective it is not sufficient simply to stimulate contractility of the myometrium. The induction method must endeavor as far as possible to replicate the events of normal parturition. In addition to generating myometrial contractility it must induce the changes of cervical ripening if these have not occurred naturally.^[2] Although the safety and reliability of induction has greatly increased in recent years, in more advanced countries because of development of newer and better induction techniques and modern facilities for foetal and maternal monitoring, we are still in position where we have to depend mainly on clinical judgment and this imposes several limitations. In this study, the role of vaginal misoprostol for the induction of labor was evaluated in the department of Obstetrics and Gynecology at a tertiary care hospital in Dhaka city.

II. Objective

General Objective

- To identify the effectiveness misoprostol for labor induction of pregnant women.

Specific Objective

- To evaluate the suitable misoprostol dose for labor induction
- To increase acceptance and use of misoprostol in Bangladesh

III. Methodology

Table-1: Study type, place of study and duration of study

Study type	Place of study	Duration
Retrospective study	Department of Obstetrics and Gynecology at Proactive medical college and hospital, Narayanganj	2 Years 1 st February 2016 30 th January 2018

Inclusion Criteria

- Patients not in labour, Singleton pregnancy with vertex presentation, unfavorable

cervix (Bishop's score <6) and intact membrane were included in this study.

- Gestational age between 38 weeks to 42 weeks.

Exclusion Criteria

- Patients with Cephalopelvic disproportion, multiple pregnancies, fetal distress, malpresentation, H/O asthma, any contraindication to normal vaginal delivery, H/O uterine surgery like LUCS, Myomectomy or Hysterotomy operation, ruptured membrane cases were excluded from this study.

Sample size: The patients admitted in the Department of Obstetrics and Gynaecology, Proactive medical college and hospital, Narayanganj, total 63 patients were selected and divided into two groups.

- Group 1: '37' (60%) patients who were primigravida.
- Group 2: '26' (40%) patients who were second gravid.

Procedure of data collection

At first, legitimate history of the patient was taken which included time of amenorrhoea, H/O antenatal examination, inoculation, gravida, last menstrual period and so forth. At that point general examination of the patient was done to identify any infection which muddles pregnancy or work. This was trailed by per stomach examination to see fetal introduction, lie, fetal heart sound. At that point per vaginal examination was done to do the clinical pelvimetry and Bishop's scoring. On the off chance that the pelvis was satisfactory for ordinary vaginal conveyance then regardless of any Bishop's score cases were chosen for acceptance of work. After appropriate determination of the cases, enlistment of work was finished by applying tab misoprostol 50mcg in the back vaginal fornix. Misoprostol is accessible in our nation as tab cytomis each containing 200 mcg. In this way, 1/4th of the tablet was utilized. Close perception of the patient was done to see when the work began. On the off chance that the work did not begin then a similar

measurement was rehashed up to the foundation of genuine work torment. At the point when the work began close observing of the patient and the embryo were finished. At the point when the work went into the dynamic stage at that point facilitate use of Tab cytomis was halted and the partograph was kept up. Following the Partograph the advance of work was checked. On the off chance that the work apparently was drawn out then growth was finished by giving oxytocin trickle. Close perception of the advance of work was done to see whether there was any untoward impact of enlistment of work like tachysystole, hyperstimulation or fetal misery. In the wake of gathering every one of the information, examination has been finished by utilizing SPSS and the outcomes are shown in tables and charts.

IV. Results

A total number of 63 pregnant women were recruited for this study as per inclusion and exclusion criteria. Out of 62 pregnant women 37 (60%) patients were primigravida and 26 (40%) patients were second gravid.

In table -1 shows Details of Patients at Induction where the mean age with standard deviation of the study population was 25 ± 4.25 years with the range of 19 to 32 years. The mean Bishop's Score was 6.4 ± 1.86 with a minimum value of 4 and maximum value 10. The mean gestational age of the study population was 40.53 ± 1.4 weeks with the minimum and maximum value of 38 and 42 weeks respectively. The mean induction delivery interval was 11.3 ± 4.6 hours with the range of 4–24 hours (Table 1). The following table is given below:

Table 1: Details of Patients at Induction

Variable	Value
Primigravida	37 (60%)
Second gravida	26 (40%)
Age [Mean±SD (Range) in years]	25 ± 4.25 (19-32)
Bishop's Score [Mean±SD (Range)]	6.4 ± 1.86 (4-10)
Gestational Age [Mean±SD (Range) weeks]	40.53 ± 1.4 (38-42)
Induction delivery interval (hours)	11.3 ± 4.6 (4-24)

In figure 2 shows Total Doses of Misoprostol in patients were Out of 63 patients 3 patients needed only 1 dose of misoprostol and 24patients needed 2 doses and only 6patients' needed 3 doses of Misoprostal. Following table is given below:

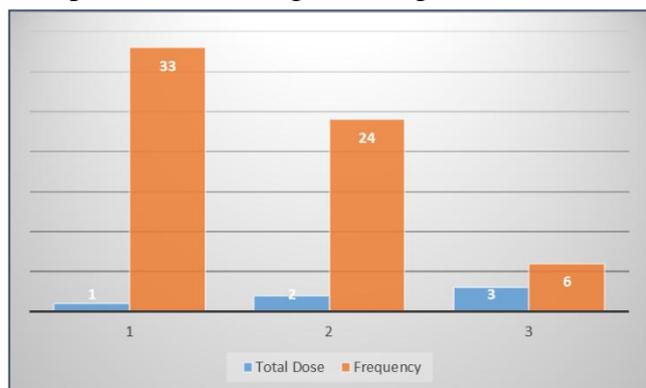


Figure 2: Total Doses of Misoprostol Given

In table-2 shows Mode of delivery with cervical score where out of 63 pregnant women 23 (35%) patients had unfavourable Bishops' score with 3-5 and 40 (65%) patients had favourable Bishops' score with 6-10. This table shows that 40 patients had favorable pre- induction cervical score, among them 80% had delivered vaginally and 20% had undergone LUCS. 23 patients had unfavorable cervix, among them 58% experienced vaginal delivery and 42% experienced LUCS (Table 3). Following table is given below:

Table 2: Mode of delivery with cervical score

Mode of delivery	Cervical Score		Total
	Favourable	Unfavourable	
Vaginal delivery	32(80.0%)	12(58.0%)	44(71.7%)
LUCS	8(20.0%)	11 (42.0%)	19(28.3%)
Total	40(100.0%)	23(100.0%)	63(100.0%)

V. Discussion

Misoprostol is a synthetic (man-made) prostaglandin that is used to reduce the risk of stomach ulcers and induce labor in patients treated with nonsteroidal anti-inflammatory drugs^[9] During this study outlined planned investigation was done to assess the result of enlistment of work by vaginal Misoprostol in term pregnancy in the branch of Obstetrics and

Gynecology, Sir Salimullah Medical College and Mitford Hospital, Dhaka .For this examination 63 patients were chosen subsequent to satisfying the incorporation and avoidance criteria. For each situation, acceptance of work was done in the wake of taking legitimate history and all the data were recorded in the information accumulation sheets. Every one of the records were examined with examination of different parts of the cases in connection to the present investigation. The investigation was directed to assess the result of acceptance of work in term pregnancy to see whether routine enlistment of work expands the rate of cesarean area, to discover the reason for disappointment of point of acceptance and any confusion of acceptance of work. In the investigation out of 63 patients 37 (60%) cases were primigravida and 26 (40%) cases were second gravida. The mean age was 25 ± 3.45 years. The most reduced matured patient was 19 years and oldest one was 32 years. It is promising and cheerful with respect to safe mother that every one of the patients were in early age gathering. Mean gestational age was 40.52 ± 1.3 weeks run was 38-42 weeks. Mean Bishop's score was 6.2 ± 1.76 and range was 3-10. In this study there was no failure of induction of labour and labour was established in 100% cases. Another similar study done by scientist (1990) showed that 63% patient with unfavourable cervix required caesarean section after induction of labour and in that study no prostaglandins was used for cervical ripening^[10] But in this study, because of prostaglandins the percentage of caesarean section was only 42% and vaginal delivery was 58%.In examination of signs of enlistment of work – Postdated pregnancy was on the highest priority on the rundown the quantity of which was 33 (55%), Preeclampsia was in the second position the quantity of which was 10 (16.65%). These results are comparable with a study done min other report.^[11] Routine induction was done in uncomplicated postdated pregnancy and with some indications with term pregnancy. But in some study report that adverse effects of taking

misoprostol by mouth are: abdominal pain, nausea, flatulence, headache, dyspepsia, vomiting, and constipation, but the number is few^[12] However this study was designed to see the outcome of routine induction of labor in term pregnancy rather than continuing the pregnancy to have spontaneous labor which may increase the perinatal morbidity and mortality.

VI. Limitation

Antenatal foetal monitoring facilities are limited and patient compliance is very poor in this study.

VII. Conclusion

After many examinations it is almost clear that Misoprostol for pregnant women is not create any unfriendly impacts on the technique for conveyance or the embryo So it can be use as a induce of labor with improved vaginal delivery outcome.

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