ABSTRACT

The labour and delivery, is the ending of a pregnancy and birth of a baby. This is more than a physical event and it can be an intense event with strong emotions. Normal birth is always spontaneous in onset and remaining so throughout the labor and delivery. When this fails induction is opted where labour process is initiated to deliver the feta-placental unit. The goal of induction is to achieve a successful vaginal delivery that is as natural as possible. When undertaken for appropriate reasons, and by appropriate methods, induction is useful and benefits both mothers and newborns. Like any unnatural method in induction also the risk is always associated. The study was conducted with objectives to identify the indications of induction, effect on mother and baby, the predicting factors for success of induction and maternal experience of control over labour situation. Related literatures were searched to know the extent of study already conducted and their outcomes. A cross-sectional observational design was adopted to evaluate the effect. The setting was labour room of SUM hospital, Bhubaneswar, Odisha. The samples were selected based on exclusion criteria which is a type of whole population sampling technique. Total 570 samples were obtained those induced with misoprostol alone. The tool was developed on baseline data, indications, maternal and neonatal outcomes and maternal experience of control. Validity of the tool was obtained by seeking expert opinion and administering it on 20 samples. The reliability of the tool was ensured after pre testing by calculating cronbach alpha value of the administered tool which was 0.911. The pilot study was conducted and the tool was modified as required.

The SPSS package version 19 was used to analyze the data. It was found that most of the mothers were primigravida and in the gestational age of >39 weeks. The common indications were post dates, oligohydramnios and pre labour rupture of memrane. Majority of mothers required only one dose of misoprostol and few of them required oxytocin acceleration. About 50.2% of women had good cervical dilatation after first dose of the drug. Irrespective of dose/s the induction failed in 24.21% of women and 10.17 % did not progress. The labour was ended with c-section in about 58.94% of women. The labour ended with cesarean section mostly due to failed induction, non progress of labour, foetal distress and meconeum staining liquor. Other symptoms like nausea vomiting, uterine hyper stimulation and tachysystole appeared in few numbers. The induction to delivery length was within 12 hours in most of the women.
The ‘t’ test and chi square test was conducted to analyze the difference in labour outcomes among baseline data and it was observed that the risk of cesarean section significantly influenced by gravidity, number of doses, cervical dilatation and oxytocin acceleration. Similarly the nausea and vomiting was influenced by doses of misoprostol and various indications of induction, tachysystole by age and the action of oxytocin. The risk of uterine hyper stimulation was due to age, BMI and oxytocin acceleration. The number of doses, gestational week and cervical dilatation significantly influenced the length of labour. The failed induction was different among the women due to number of doses of misoprostol, cervical dilatation and labour acceleration by oxytocin. Similarly differences in progress of labour was due to cervical dilatation, labour accelerated by oxytocin and indication of induction. The significant difference in Apgar score was due to cervical dilatation. The NICU admission was influenced by gestational week, number of doses and BMI status of women.

The binary logistic regression analysis shows the significant predictors of successful induction as gravida and the number of doses of misoprostol. Similarly the nausea and vomiting was predicted by the number of doses, uterine tachysystole by the age of woman, uterine hyper stimulation by oxytocin acceleration, induction to delivery time by cervical dilatation, gestational age and number of doses of misoprostol. The predicting factors for failed induction were drug doses and cervical dilatation and for poor progress the cervical dilatation and use of oxytocin. Similarly the Apgar was predicted by cervical dilatation and the NICU admission by the drug doses.

The maternal experience of control over situation was fair as measured through labour agentry scale. The experience of women was good due to immediate intervention, the case management and overall by delivery of a healthy baby (though many delivered by c-section). The lack of information, education and involvement in decision making process made them feel less control over the situation. The satisfaction with childbirth experience and their confidence therefore can be enhanced by good support system, interactive sessions to know their expectations, comfort measures to reduce pain and complete information about the risk and befits of the procedure. Though induction is a additional burden to the delivering woman, but the maternal and neonatal hazards are minimal and midwives concern.