

A Research on the Use of a Partogram in the Management Of Labor in Patients Who Had Previously LSCS

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Abstract

Background: A partogram is a valuable tool for tracking the progress of labor. Partogram can aid with intrapartum monitoring and identifying any atypical labor patterns in individuals who are having a trial of labor after a cesarean surgery. As a result, it can assure a positive fetomaternal outcome.

Aim: The goal of this study was to track the progress of labor in all ANCs who had previously given their consent for vaginal birth through partogram and report the fetomaternal result.

Methods: A 6-month retrospective observational research was undertaken in 50 patients who had previously had LSCS for labor trial and met the inclusion criteria. Every patient gave a detailed history of their age, parity, pregnancy length, and labor discomfort. General physical examination, abdominal examination for fundal height, position, presentation, engagement, amount of liquid, palpable uterine contraction, and fetal heart rate were all performed. For pelvic assessment and Bishop score, a pelvic examination was performed. All of the information was entered into a pre-made proforma. All of the patients' labors were documented on a WHO-modified partograph. SPSS software was used for statistical analysis.

Result: Twenty (40%) of the 50 patients delivered vaginally, whereas the other 30 (60%) needed repeat LSCS. Instrumental deliveries accounted for four of the twenty vaginal deliveries. Six patients (12%) crossed the action line, 26 (52%) were in the middle of the action and alert lines, and 18 (36%) did not cross the alert line. Fetal discomfort was detected in 20 patients (66.66 percent), scar dehiscence in four patients (13.33 percent), and non-progression of labor in six patients (20 percent). At one minute, the APGAR score was less than 7 in 10 infants and greater than 7 in 40 neonates. At 5 minutes, the APGAR score was less than 7 in 6 infants and greater than 7 in 44 neonates.

Conclusion: The partogram reduced fetomaternal problems and assisted in the early detection of deviations from normal labor, allowing for prompt management. The participants who passed the partogram alert line were taken for LSCS, showing that the partogram was more effective. Maternal difficulties in patients who have had past LSCS, such as obstructed labor, protracted labor, scar dehiscence and scar rupture, as well as additional complications such as PPH, cervical tears/vaginal lacerations, can be avoided with the use of a partogram.

Keywords: partogram, obstructed labor, intrapartum monitoring

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Introduction

A picture is worth a thousand words,' as the saying goes. Partograph is a Latin/Greek hybrid word that refers to a pictorial representation of parturition. On a single sheet of paper, a partograph is a composite pictorial record of essential data (maternal and fetal) during labor, entered against time [1]. Partograph is a basic, low-cost prediction technique that is labor-intensive but underutilized due to a lack of understanding. The World Health Organization designed and marketed a partograph as part of the Safe Motherhood program, which was initiated in 1987 with the goal of improving labor management and reducing mother and fetal morbidity and mortality [2,3]. A partogram is a valuable tool for tracking the progress of labor. Partogram can aid with intrapartum monitoring and identifying any atypical labor patterns in individuals who are having a trial of labor after a cesarean surgery. As a result, it can assure a positive fetomaternal outcome [4]. The WHO-modified partogram, according to the program, is a great tool for reducing obstructed labor and its implications. Despite the fact that the maternal mortality ratio (MMR) has decreased by about 45 percent in the previous two decades, roughly 300,000 women die each year owing to preventable pregnancy-related problems around the world [5]. Obstructed labor is a major cause of maternal and newborn death, particularly in underdeveloped nations. The purpose of this study was to give a labor trial utilizing WHO-recommended partograms in order to assess the efficacy of partograms in patients in labor with a previous LSCS, as well as the predictability of labor progress and outcome [6].

AIM: The goal of this study was to track the progress of labor in all ANC's who had previously given their consent for vaginal

birth through partogram and report the fetomaternal result. To find out if there are any unusual work patterns. To avoid a protracted labor and its associated difficulties. To investigate the effects on the mother and the fetus

Material and Methods

Material: Patients with a previous LSCS (previous LSCS due to non-recurrent indications such as Breech, fetal compromise, abruptio placenta, cord prolapse, etc.), an adequate pelvis, and a cephalic presentation who had a consultant decide to give a normal trial of labor at a Medical College or Hospital were chosen for the study and given information on the benefits and drawbacks of vaginal birth after cesarean section (VBAC). All consenting patients signed an informed written consent form. Patients with malpresentation, CPD, contracted pelvis, more than one previous LSCS, previous classical CS, previous CS due to prolonged labor or obstructed labor, previous inverted T incision, pregnancy occurring too soon after cesarean section, Pre-term labor, PPRM, placenta previa, and Pre-eclampsia/ Eclampsia were all ruled out of the study.

Method: A 6-month retrospective observational research was undertaken in 50 patients who had previously had LSCS for labor trial and met the inclusion criteria. Every patient gave a detailed history of their age, parity, pregnancy length, and labor discomfort. General physical examination, abdominal examination for fundal height, position, presentation, engagement, amount of liquid, palpable uterine contraction, and fetal heart rate were all performed. For pelvic assessment and Bishop score, a pelvic examination was performed. All of the information was

entered into a pre-made proforma. All of the patients' labors were documented on a WHO-modified partograph. Individual partographs were examined to learn about the many features of labor, as well as the role of partographs in affecting decision-making in cases of irregular labor progression.

Results & OBSERVATIONS:

Our study included 50 patients with an average age of 24.08 years, with the youngest patient being 19 years old and the oldest being 33 years old.

Table 1: Demography

AGE	NO	%
18-24	28	56
25-29	18	36
30-35	4	8
TOTAL	50	100

In the current study, 42 of 50 individuals delivered between 37 and 40 weeks of pregnancy (84 percent). Patients who underwent repeat LSCS accounted for 26 (52%) of the total, whereas those who delivered vaginally accounted for 16 (32 percent).

Table 2: Gestational Age in Weeks at the Time of Delivery

Gestational Age in Weeks at the Time of Delivery	NO
37-40	42
>40	8
TOTAL	50

Table 3: Mode of Delivery

MODE OF DELIVERY	NUMBER	%
LSCS	30	60
NORMAL VAGINAL DELIVERY	16	32
INSRUMENTAL DELIVERY	4	8
	TOTAL	50

8 individuals gave birth at a gestational age of above 40 weeks (16 percent). Four patients (8%) underwent LSCS, and four were vaginally delivered (8 percent). The relationship between gestational age and manner of delivery was not statistically significant. 4 patients had scar dehiscence (13.33 percent), 6 patients were brought for

LSCS due to non-progression of labor (20 percent), and 20 patients reported fetal distress among the 30 patients who underwent repeat LSCS (66.66 percent). Four of the 20 patients who gave birth vaginally had to have an instrumental delivery (20 percent).

Table 4: Indication of LSCS

INDICATION OF LSCS	NO
FETAL DISTRESS	20
NON PROGRESSION OF LABOR	6
SCAR DEHISCENCE	4
TOTAL	30

Complications:

Maternal complications: Two patients suffered cervical tears and two had vaginal lacerations as a result of instrumental delivery, out of a total of 20 vaginal deliveries. PPH was found in four of the instances. There were no newborn problems, such as birth hypoxia or meconium aspiration, in this study.

Discussion

Trials on vaginal birth after a previous caesarean section have filled the world's obstetric literature since 1920, when lower segment transverse caesarean section became popular, proving that vaginal delivery is the best mode of delivery in future pregnancies unless contraindicated [7]. A total of 50 participants were chosen for a labor trial in this study. Twenty of the 50 patients delivered vaginally, resulting in a 40% overall incidence in patients with past LSCS who were undertaking a trial of labor. This outcome was very similar to Sharma R. K.'s research. In the study group, there was no evidence of maternal morbidity at all. In our study, there was no maternal mortality [8]. PPH was detected in four cases (8 percent), whereas PPH was seen in four percent of the cases in the study by Sowmya K. et al. In our study, there were no stillbirths or perinatal deaths, and no other neonatal difficulties, however in a study by Sowmya K. et al., there was a 2% incidence of birth hypoxia and a 2% incidence of meconium aspiration. There were no incidences of scar rupture in our study, however there were four cases (8%) in which scar dehiscence was discovered, necessitating a repeat LSCS. According to Sharma R. K.'s research, scar dehiscence occurred in 1.2 percent of instances [9].

Once the labor curve moves to the right of the warning line, newborn morbidity rises, and it rises dramatically as the labour curve crosses the action line. As a result, the partograph's alert line indicates a high risk of respiratory distress in the fetus. The use of partograph decreases the number of fresh

stillbirths and perinatal deaths [10]. Thus, effective vaginal delivery was achieved after a thorough selection of instances for trial of labor in patients with past LSCS. Furthermore, with improved infrastructure and prenatal and postnatal treatment for these patients, maternal and perinatal morbidity and death can be successfully minimized [11,12].

Conclusion

The partogram reduced fetomaternal problems and assisted in the early detection of deviations from normal labor, allowing for prompt management. The participants who passed the partogram alert line were taken for LSCS, showing that the partogram was more effective. Maternal difficulties in patients who have had past LSCS, such as obstructed labor, protracted labor, scar dehiscence and scar rupture, as well as additional complications such as PPH, cervical tears/vaginal lacerations, can be avoided with the use of a partogram.

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