Scholars Academic Journal of Biosciences (SAJB)
Abbreviated Key Title: Sch. Acad. J. Biosci.
©Scholars Academic and Scientific Publisher
A Unit of Scholars Academic and Scientific Society, India
www.saspublisher.com

ISSN 2347-9515 (Print)
ISSN 2321-6883 (Online)

Obstetrics

Pregnancy Outcome with History of Previous One Cesarean Section in Our Hospital

Dr. Lata Rajoria[1], Dr. Kiran Meena*[2], Dr. Anita Simlot[3], Dr. Nooren Mirza[4], Dr. Nidhi Goyal[5], Dr. Shivani Gupta[6]

[1]Senior Professor (HOD) Department of obstetrics and Gynecology, SMS Medical College, Jaipur, Rajasthan, India
[2]Postgraduate Resident, Rajasthan University of Health Science, Jaipur, Rajasthan, India
[3]Senior Professor, Department of obstetrics and Gynecology, SMS Medical College, Jaipur, Rajasthan, India
[4]Associate Professor, Department of obstetrics and Gynecology, SMS Medical College, Jaipur, Rajasthan, India
[5]Postgraduate Resident, Rajasthan University of Health Science, Jaipur, Rajasthan, India
[6]Postgraduate Resident, Rajasthan University of Health Science, Jaipur, Rajasthan, India

Original Research Article

***Corresponding author**
Dr. Kiran Meena

Article History
Received: 04.02.2018
Accepted: 13.02.2018
Published:28.02.2018

DOI:
10.36347/sajb.2018.v06i02.011

Abstract: The purpose of this study was to determine the outcome of pregnancy in women with previous one cesarean section in relation to vaginal delivery or repeat cesarean section is a tertiary care hospital. This prospective observational study was carried out in the Department of Obstetrics and Gynecology at Gangori Hospital, Jaipur Rajasthan, India from July 2016 to December 2017. In this study out of the total 100 cases, 46 cases were given trial of labor (TOLAC) and out of them 32 cases had VBAC i. e. 69.56% while 14 cases had failed trial of labor and they required emergency cesarean section Total live birth rate was 100% in vaginal delivery. In the current scenario primary cesarean rate is increasing. After selection of eligible women, trial of labor (TOLAC) after a prior cesarean section is safe and often successful. Trial of labor has great importance for mother and fetal outcome.

Keywords: Previous one cesarean section, Trial of labor after cesarean (TOLAC), vaginal birth after cesarean (VBAC), emergency cesarean section.

INTRODUCTION

Women with previous cesarean sections are considered a high risk group in obstetrics. Trial of labor after cesarean section (TOLAC) represents a significant change in modern obstetric practice to control the rising rate of cesarean sections. TOLAC is a trial of labor in selected cases of a previous cesarean section in a well-equipped hospital. In 1916, Cragin popularized the dictum, “once a caesarean section, always a caesarean section” [1].

But now trial of labor is increasing in current scenario after selection of eligible candidates so the dictum now is “once a caesarean section, always an institutional delivery in a well-equipped hospital”. A cesarean delivery makes a mother fall into the high risk pregnancy group. WHO recommends cesarean rate should be 10-15%. With increasing techniques and skills in obstetrics, the incidence of cesarean scar rupture in following pregnancies is very low. Delivery planning for the woman with previous cesarean section can begin preconception period or antenatal period after obtaining proper history about the indication of LSCS, whether elective or emergency, any adverse events in intrapartum or postpartum period but the strength of the uterine scar and its behavior of labor cannot be completely assessed or guaranteed in advance. So scar in there is always a need of a senior obstetrician for the assessment and supervision. And such cases should be delivered only at centers with emergency cesarean facilities. The main aim of our study was to determine the outcome of pregnancy in women with prior cesarean section in relation to vaginal delivery or repeat cesarean section in our hospital.

MATERIALS AND METHODS

This prospective observational study was carried at a Gangori hospital attached to SMS medical college which is a tertiary care referral hospital of Jaipur, Rajasthan in India from January 2017 to December 2017. This hospital gets referrals of high-risk cases from neighboring villages and townships. A total of 100 cases of a previous CS were selected either from the outpatient department (booked) or in labor (unbooked). In booked cases, those who were regularly followed up in the antenatal clinic included and in the unbooked patients, who came directly for labor, were included and then they were assessed for a trial of vaginal delivery.

In the study, cases with a single previous transverse lower uterine segment scar were included after informed consent. All cases and their attendants were explained about the advantages of vaginal birth over elective CS, the risk of scar dehiscence and the need for emergency CS, if trial of vaginal delivery failed and consent was taken. Continuous intrapartum monitoring was done with standard protocol of our hospital. The trial of vaginal delivery was continued till there was satisfactory progress but the trial was terminated by emergency repeat CS, when there was an evidence of unsatisfactory progress, scar dehiscence, or fetal distress.

RESULTS

During the study period, a total number of 100 women were included who were admitted with history of one caesarean section.

Table-1: Distribution of study cases according to the outcome

Mode of delivery	Number (n=100)
Elective repeat cesarean section	34
Emergency cesarean section	20
Trial of labor	46

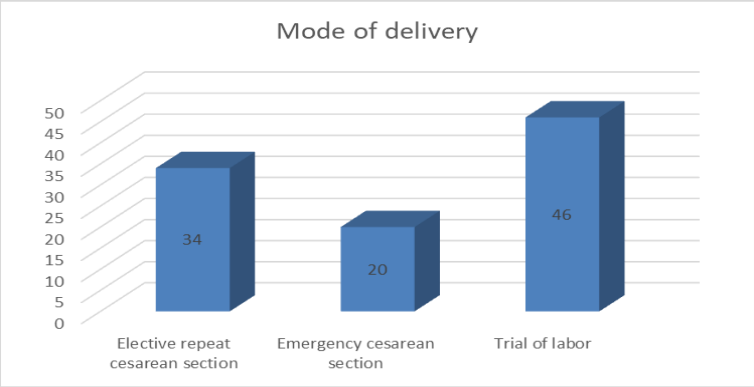

Fig-1: Mode of delivery

Table 1 show that in the total 100 cases, 34 cases were taken directly for elective caesarean section that was not suitable for trial of labor. In the whole study, 20 cases although in labor, who were not fulfilling the criteria of trial of labor hence were taken directly for emergency caesarean section including those who had fetal distress on admission or other emergency condition. Among total cases, 46 cases were taken for trial of labor.

Table-2: VBAC success rate at our institution during our study period

No. of study cases with previous LSCS	100
Trial of labor	46
Successful vaginal birth	32
failed trial requiring emergency section	14

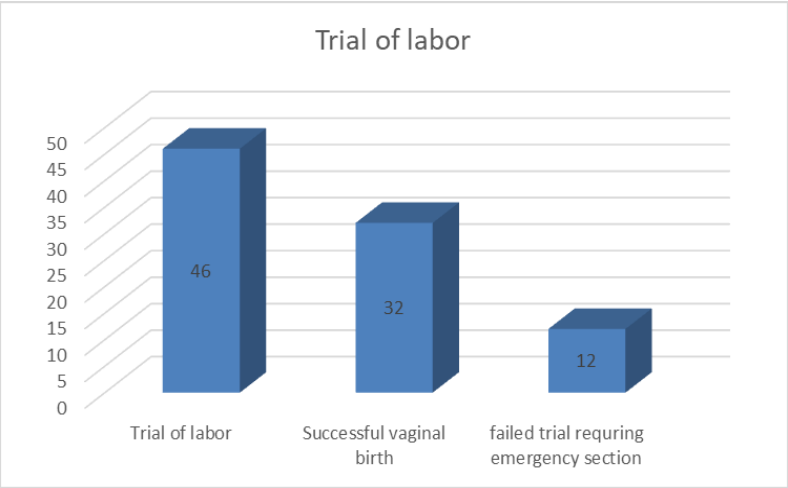

Fig-2: Trial of labor

Table 2 shows in the total 46 cases, out of 100 cases were given a trial of labor. Out of those 46 cases, 32 were delivered vaginally and remaining 14 cases had failed trial of labor and required emergency caesarean section.

Table-3: Indication of repeat emergency cesarean in cases of failed trial of labor

Indication of repeat emergency cesarean	Number of cases(n=14)
Fetal distress	7
Scar dehiscence	3
Deep transverse arrest	1
Persistent Occipito posterior	1
Cervical dystocia	2

In the present study out of the total 14 cases of failed trial of labor that required repeat emergency cesarean, 7 were due to fetal distress and 3 were due to scar dehiscence. Deep trans- verse arrest and persistent Occipito posterior were also found indication of repeat emergency cesarean in one woman.

Table-4: Distribution of neonatal outcome in the study cases

Neonatal outcome	Cesarean section	Vaginal delivery	Total
Live birth	66	32	98
Still birth	2	0	2

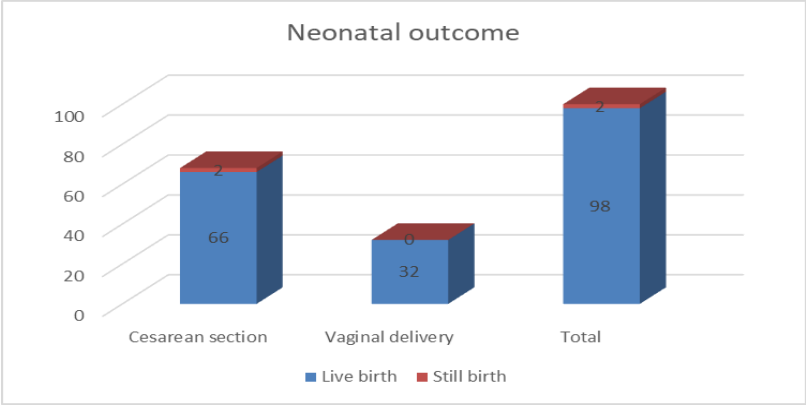

Fig-3: Neonatal outcome

In the present study, total 68 cases were delivered by caesarean section, 66 had live birth and 2 had still births. Out of 2 stillbirths, the first case was taken for emergency caesarean section after failed trial of labor and fetal distress while the other was taken for emergency caesarean section without giving trial of labor in view of scar dehiscence. In the vaginal delivery total around 32 cases had live birth.

DISCUSSION

In the present study, total 100 cases were included with one previous caesarean section, 34 cases were taken directly for elective caesarean section. In these 34 were the ones who had documented with previous classical or inverted T-shaped incision on the uterus, contracted pelvis or cephalopelvic disproportion and those having other medical or obstetrical complications associated with pregnancy were included.

In the total study group 46 cases were given trial of labor and remaining 20 cases were not fulfilling the criteria of trial of labor and they required emergency caesarean section without undergoing trial of labor. Our results were comparable to other studies of Andrea B. Pembe *et al*.[2] Bhat BPR *et al*.[3], Pramod Kumar *et al*.[4].

In the present study it was found that out of 46 cases who were given trial of labor, 32 cases were successful i. e. 69.56% while 14 cases had failed trial of labor and they required emergency cesarean section.

In this study, out of the total 14 cases of failed trial of labor that required repeat emergency cesarean, 7 were due to fetal distress and 3 were due to scar dehiscence and deep transverse arrest and Occipito posterior were the indication of repeat emergency cesarean in each woman. Thus fetal distress was the commonest indication for emergency repeat caesarean section which was also evident in different studies like Vardhan Shakti *et al.* [5], Iqbal Begum *et al*.[6], Bhat BPR *et al*.[3], Shah Jitesh Mafatlal *et al*.[7]

In this study authors found that total 68 cases were taken cesarean section and in which 2 were still birth and 66 were live birth. But in total vaginal birth, all were live birth i.e.100%. Both of two cases were unbooked in our hospital and they came with jeopardized fetal condition. Cause of neonatal still birth as given by pediatrician in both the above cases were congenital anomalies non compatible with life. Our study was similar to Bhat BPR *et al.* [3], reported in their study that emergency caesarean section was associated with 20% perinatal morbidity as compared to 16.4% for vaginal delivery and 1.8% for elective repeat caesarean section. Smith GC *et al.* [8] found that delivery related perinatal death was 12.9/10000 women who had a trial of labor after previous section, the rate was 11 fold greater than the risk associated with planned repeat caesarean section this is in contrast with our findings.

CONCLUSION

Regular and intensive antenatal surveillance is required in the management of patient with previous caesarean section. Counseling should be started in antenatal period. Proper selection and close supervision by competent staff are necessary. Trial of labor is a relatively safe procedure but it is not completely risk free. But in current scenario, cesarean section rate is on rise so it is necessary to control it. This reduction can be achieved safely and efficiently by encouraging the trial of labor in women with a single previous caesarean delivery.

REFERENCES

1. Cragin EB. Conservatism in Obstetrics. N Y Med J. 1916;104:1–3
2. Pembe AB, Othman MK. Pregnancy outcome after one previous caesarean section at a tertiary university teaching hospital in Tanzania. Tanzania J Health Res 2010;12:1-10.
3. Bhat BPR, Savant R, Kamath A. Outcome of a post caesarean pregnancy in a tertiary centre of a developing country. J Clin Diagn Res 2010;3:2005-9.
4. Kumar P, Shivkumar PV, Jaiswal A, Kumar N, Saharan K. Subjective assessment of LSCS scar site for vaginal birth after caesarean trial and outcome in MGIMS, Sewagram, Wardha, India. Int J Biol Med Res 2012;3:1825-9.
5. Vardhan S, Behera RC, Sandhu GS, Singh A, Bandhu HC. Vaginal birth after caesarean delivery. J Obstet Gynecol India 2006;56:320-3.
6. Begum I, Khan A, Khan S, Begum S. Cesarean and Post-Partum Hysterectomy. Pak J Med Res 2004;43:134-7.
7. Shah JM, Mehta MN. Analysis of mode of delivery in women with previous one cesarean section. J Obstet Gynecol India 2009;59:136-9.
8. Smith GC, Pell JP, Cameron AD, Richard D. Risk of perinatal death associated with labour after previous caesarean delivery in uncomplicated term pregnancies. J Am Med Assoc 2002;287:2684-90.