

Outcome of Trial of Labour after Caesarean Section

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Abstract:

Aims and objectives: To evaluate the Feto-maternal outcome of trial of labour after previous one caesarean section (TOLAC).

Materials and methods: A trial of vaginal delivery was carried out on 100 patients with previous one caesarean section in the Department of Obstetrics and Gynaecology, GMC Srinagar. Selection criteria were subjects with normal pregnancy, adequate maternal pelvic dimensions, and vertex presentation with previous one uncomplicated Lower segment caesarean section (LSCS). Patients with classical caesarean section, medical complications, multiple pregnancy, intrauterine growth retardation and placenta previa were excluded from the study. Written informed consent was taken from all patients. Trial of scar was given with vigilance. Maternal and fetal outcome was studied.

Results: Successful vaginal delivery was achieved in 79% of the patients and repeat emergency caesarean section was carried out in 21% of the patients. Leading indication for repeat caesarean section was foetal distress followed by non-progression of labour and scar dehiscence.

Conclusion: Trial of scar after one caesarean section should be encouraged with vigilant monitoring provided no obstetric contraindication exists.

Keyword: LSCS, Scar dehiscence, trial of labour VBAC.

I. Introduction

Caesarean delivery defines the birth of a fetus via laprotomy and then hysterotomy. Worldwide the rate of caesarean section is rising during the last three decades. In 1916 Cragin popularized the dictum "once a caesarean, always a caesarean."¹The caesarean section rate increased from 5% in 1970 to 24.7% in 1988. This was a huge rise in a short period of time and it set off many alarms in public health officials.

Vaginal birth after caesarean section (VBAC) is one of the strategies developed to control the increasing rate of caesarean sections. It is a trial of vaginal delivery in selected cases of a previous caesarean section in a well equipped hospital.²

Successful trial of labour and vaginal birth after caesarean section results in decreased maternal morbidity in terms of blood transfusion, hysterectomy and febrile illness as compared to repeat caesarean section.^{3,4} Studies concluded that the success rate of VBAC was 74%(ranging from 68%-77%) with the rupture rate of less than 1%.

During the period (1889-1996), the VBAC rate increased, so did the number of well publicized reports of uterine rupture and other complications. Rate of VBAC reached 28.3% and caesarean section at 20.7% in 1996. From 1996-2004, However the caesarean section rate increased to 29.2%, while the rate of VBAC declined from 28.3% to 9%.^{5,6} The increased rate of caesarean section led to associated complications-pelvic adhesions, adherent placenta, bladder injury and increased hysterectomy rate.^{7,8}

In 2010, ACOG expressed more encouragement of VBAC, but maintained that it should be undertaken at hospitals capable of emergency care, though patient autonomy in assuming increased level of risk should be respected.⁹

The decrease in women with a previous caesarean section undergoing trial of labour reflects a patient's choice as much as obstetrician's decision. The way in which a woman is counselled will influence this choice. If a doctor has no objections to a repeat caesarean section and informs the women that her chances of a repeat operation is around 30%^{10, 11} the women herself will be influenced by this. Evidence suggests that there is significantly greater morbidity associated with the trial of scar compared to an elective caesarean section which will further affect the decision.

II. Methodology

This study was carried out in the Department of Obstetrics and Gynaecology GMC Srinagar over a period of one year from March 2013-Mar 2014. 100 cases with previous one uncomplicated caesarean section for non recurrent cause, meeting the inclusion criteria, were taken for the study.

Inclusion criteria:

1. Previous one uncomplicated caesarean section.
2. Singleton pregnancy with vertex presentation.
3. Adequate pelvic dimensions.
4. Patient's informed consent

Exclusion criteria:

1. Previous classical caesarean section or T shaped incision.
2. Medical and obstetrical complication like diabetes, hypertension, multiple pregnancy, mal- presentation, IUGR and placenta previa.
3. Cephalo-pelvic disproportion.
4. Patient refusal

After admission informed consent was taken and trial of labour was given to the patients under vigilant monitoring with the facility of operation theatre, anaesthesia and paediatrician. Close maternal and foetal monitoring was done.

III. Results

100 cases with previous one uncomplicated caesarean section for non recurrent cause, meeting the inclusion criteria, were taken for the study.

Table 1

Maternal profile.

| Parameter | Mean+SD |
|----------------------|-------------|
| Maternal age(Yrs) | 30±4.2yrs |
| Gestational age(Wks) | 37.6±2.1wks |

Out of 100 selected cases, 86 had spontaneous onset of labour whereas 14 were induced by various methods for cervical ripening.

Table 2

Mode of delivery

| Mode of delivery | N | % |
|-------------------|----|-----|
| Vaginal delivery | 79 | 79% |
| Caesarean section | 21 | 21% |

Table 3

Indication for caesarean section

| Indication for caesarean section | Number(n) | Percentage (%) |
|----------------------------------|-----------|----------------|
| Fetal distress | 12 | 57.14% |
| Non progression of labour | 5 | 23.80% |
| Scar dehiscence/Rupture | 4 | 19.04% |

There was no case of maternal mortality. There were 4 cases of Scar dehiscence/uterine rupture. All cases of rupture/dehiscence were repaired.

Table 4

Neonatal outcome

| Parameters | Caesarean section group | Vaginal delivery group | P value |
|---------------------------|-------------------------|------------------------|---------|
| Mean APGAR score at birth | 7.8±0.6 | 7.9±0.5 | 0.437 |
| Mean birth weight | 2.7±0.5 | 2.7±0.24 | 0.999 |
| NICU admission | 4 | 2 | 0.034 |
| Neonatal death | 2 | 0 | 0.084 |

IV. Discussion

Caesarean section rate has been increasing now a day's even though the caesarean section carries three fold increased risk of mortality compared to vaginal delivery. Increased risk of maternal complications with repeated caesarean section and safety of VBAC, trial of labour in selected group of patients with previous scar has been a preferred strategy. Our study had a success rate of 79% and repeat caesarean sections in 21%. The leading reason for repeat caesarean section was fetal distress. Shah Jitesh et al performed a study on VBAC with success rate of 72.1%.¹² Ibrahim A. Abdelazim and workers conducted a study on VBAC and had 72.13% success rate¹³.

The purpose of this study was to predict the maternal and perinatal outcome while having trial of vaginal delivery after one caesarean section. Identification of factors those are likely to have a successful VBAC, thus reducing fetomaternal mortality. Promoting vaginal birth in patients with a previous caesarean section and reducing its complications is another benefit of the study. Selection of patients and monitoring of labour course is very important for increasing successful vaginal delivery and reducing caesarean section.

V. Conclusion

The study concluded that vaginal birth after caesarean section is safe and good modality to reduce caesarean section rate with few maternal and perinatal complications. VBAC should therefore be offered as an alternative under close monitoring.

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