ISSN: 0975-1556

Available online on www.ijpcr.com

International Journal of Pharmaceutical and Clinical Research 2021; 13(6); 302-306
Original Research Article

Pearls & Pitfalls of VBAC- An Observational Study

Neelam Kumari[1], Alka Pandey[2], Manisha[3]

[1]Associate. Professor, Department of Obstetrics and Gynecology, PMCH, Patna, Bihar, India.

[2]Ex. Associate Professor, Department of Obstetrics and Gynecology, PMCH, Patna, Bihar, India.

[3]Ex Sr. Resident, LHMC, New Delhi, India.

Received: 06-08-2021 / Revised: 14-09-2021 / Accepted: 18-10-2021
Corresponding author: Manisha
Conflict of interest: Nil

Abstract

Purpose: The high incidence of LSCS is a matter of great concern. The fear of Scar dehiscence in subsequent pregnancy is far from the reality. The present prospective study has been done to evaluate the feasibility and safety of vaginal delivery in patients having one previous LSCS.

Material & Methods: This prospective study was done at PMCH between January 2018 and December 2018. 100 cases of previous caesarean section were selected and given trial of labor under supervision of a senior consultant.

Observation & Conclusion: 72 % patients with one previous LSCS- done for non-recurrent indications had successful vaginal delivery i.e., VBAC. The success rate was better in women with at least one normal delivery in addition to previous LSCS. There were only two cases of Scar dehiscence- delivered safely with LSCS. We conclude that VBAC is a safe alternative to repeat elective CS in properly selected cases at proper places**.**

Keywords: Previous CS, Vaginal Delivery, Feasibility & Safety.

Introduction

Caesarean section rates steadily increased throughout the twentieth century. Repeated CS contributed almost 40% of these cases. It was the era of classical CS. Thanks to the dictum of Cragin 1916- once a CS always a CS.[1] In the present era of LSCS the dictum now is once a CS always an institutional delivery in a well-equipped hospital. The reasons behind this new dictum are based upon the newer concepts of the assessment of scar integrity, fetal well-being and improved facilities of emergency CS. The most commonly quoted rate of caesarean scar rupture is 0.5 % or one in 200. VBAC labor,. the vast majority of which are benign causing no major problems for either mother or baby. The serious complications of caesarean scar rupture are very rare. (AIMS).[2] In 1981, vaginal birth after CS, was recognized as a safe and acceptable option after previous lower transverse caesarean delivery.[3] Jennifer et al. in their model provided a range of successful probability of VBAC (38- 98%) with an area under the receiver operating characteristic curve of 0.723.[4]

The present study was undertaken to assess the success and safety of VBAC in selected cases of one previous LSCS and to evaluate

the maternal and foetal outcome in these cases.

Materials and Methods:

This prospective observational study was carried out at a tertiary care teaching hospital PMCH in between January, 2018 and December, 2018. This hospital gets referrals of high-risk cases about 6000 deliveries take place annually in this hospital with the rate of CS between 35 to 40%.

A total of one hundred cases of previous caesarean section were selected either from the outpatients department (booked) or in labor room/emergency (unbooked). Booked cases were regularly followed up in the antenatal clinic and the unbooked patients, who reported directly for labor, were then assessed for a trial of vaginal delivery.

Inclusion Criteria:

- **Age Group**: Between 21 to 30 years
- **Patients with good health, no medical complication, having one or more vaginal deliveries in addition to LSCS/**
- **Inter Pregnancy interval:** > 18 months.
- **Indications for Previous CS**: Non recurrent causes.
- **Baby Weight of Previous delivery:** < 3.5 Kg
- **Uterine Scar thickness:** between 2.1 mm to 4 mm
- Good Bishop Score and occipito interior position

Exclusion Criteria:

- Two or more cesarean section.
- Female of very short height- CPD
- Inter pregnancy Interval: < 18 months
- Postdated pregnancy
- Fetal weight >3.5 Kg
- Uterine Scar thickness <2 mm
- Poor bishop Score with occipito posterior transverse lie breech etc.

- After taking informed consent of patients/guardians a total no. of 100 cases that fulfilled the selection criteria were enrolled in the study. All patients and the relatives were explained about the advantage of vaginal birth over elective CS.
- They were also explained about the risk of scar dehiscence and the need for emergency CS, if trial of vaginal delivery failed.
- Haematological and serological investigation and obstetric sonography were performed during antenatal visits.

The cases selected were monitored carefully during labor by a senior consultant with continuous electronic foetal monitoring

Results & Observations:

Table 1: Indication of previous CS and outcome of trial of VBAC

Indication of Pre. CS	No. of Cases (100)	Successful VBAC (72)	Emergency LSCS (28)
Foetal Distress	37	26	11
Mal Presentation			
Breech	15	11	4
Transverse Lie	5	3	5
Pre Eclampsia + Eclampsia	28	22	6
Non progress of labor	10	6	4
PROM	5	4	1

Table 2: Indication of repeat emergency LSCS in cases of failed trial of VBAC (Total No. of Cases:28)

Foetal Distress	7	25%
Scar dehiscence	2	7.14%
Prolonged first stage of labor	10	10%
Prolonged second stage of labor	2	7.14%
Cervical dystosia	1	3.57%
Repeat malpresentation	6	21.42%

Table 3: APGAR Score of Babies: (Total No. of Cases:100)

APGAR Score	**VBAC (72 cases)**	**Repeat CS Emergency (28 cases)**
APGAR Score >8	60 (83.33%)	22 (78.57%)
APGAR Score 6-8	10 (13.89%)	4 (14.29%)
APGAR Score <6	2 (2.78%)	2 (7.14%)

Observation:

We had a total no. of 100 cases with one previous LSCS in the series. 65 % cases were para2+ i.e. having one vaginal delivery in addition to LSCS. 72 % of the patients have successful vaginal delivery with the above protocol. Nonrecurrent indications for the previous LSCS with the proper active management of labor result in successful VBAC. 5 patients had previous LSCS for PROM. - In the current pregnancy 4 of them i.e. 80% had successful Vaginal delivery and in one repeat LSCS. 10 patients had previous LSCS for non-progress of labor. Out of these only 6 patients had successful VBAC and 4 of the patients required LSCS. Indications for emergency (repeat LSCS) in the present series were prolonged labor 43% followed by foetal distress 25% and malpresentation 21.42%. Babies with the repeat emergency LSCS were also having almost similar APGAR score like VBAC. It justifies the trial of VBAC in properly selected cases. VBAC was more successful in patients of previous LSCS with one or more normal delivery.

Discussion:

The high incidence of rupture uterus associated with the classical CS led to Cragin's dictum of once a cesarean always a cesarean. This apprehension of Scar dehiscence has been probably over emphasized in the minds of patients as well as health care workers. With modern LSCS the incidence of scar dehiscence came down to 0.5 to 2% only. However it has the potential for causing serious hazards to the pregnant women as well as babies. The justified today's dictum is once a CS always an institutional delivery in a well-equipped hospital with the facilities for emergency CS and other amenities. A thorough assessment of the individual patients (case) with regard to the possibility of Successful VBAC is necessary while taking the decision. The advantage which the vaginal delivery imparts largely outweighs the risk associated with a repeat CS. The interval between the previous CS and present pregnancy was more than $\mathbf{1\frac{1}{2}}$ years in 75% cases and less than $\mathbf{1\frac{1}{2}}$ years in 25% cases. Shipp et al[5] studied the risk of scar dehiscence in relation to the interval between a previous CS and the present pregnancy. They reported that the rate of scar rupture was 2.3%, when the interval was less than 18 months as compared to 1%, when the interval was more than 18

months. Similarly, in the present study, the rate of scar rupture was 2%. In the present study the commonest indication for a previous CS was fetal distress. The success rate of VBAC in these cases was 70.27%. Similar results of (68 to 83%) have been reported by other workers. In this study success of VBAC in cases of previous CS for malpresentation was 70% studies by Jansen et al[6] and Phelan et al[7] have reported similar results. The success rate of VBAC in non-progress of labor is 60% and in preeclampsia and eclampsia cases 78.57%.

The overall success of VBAC in the present study was 72%. These results were comparable with the result of other studies reported by Riva and Teich[8] Dayal V [9] and Allahabadia [10] . In our study, the rate of repeat emergency CS was 28% and commonest indication was prolonged labor 43%, followed by foetal distress 25 % and malpresentations 21.42%. Phelan et al and Dayal V reported a lower (15%) rate of fetal distress requiring CS. The success rate of VBAC was significantly higher in cases with cervical dilatation of more than 3 cm at the time of admission. Landon et al[11], Demianczuk et al[12] and Pickardt el at[13] reported similar findings in their studies. VBAC in cases with previous normal vaginal +LSCS delivery was quite smooth. Vidyadhar et al[14] in their paper Vaginal Birth after Caesarean section have mentioned that Landon et al and kraiem et al, Whiteside DC et al. Bedoya et al reported that a previous vaginal delivery was the greatest predictor for a successful VBAC. There were two case of scar dehiscence managed by CS in our series (i.e. 2%). Obara et al[15] reported (0.93%) in their study, in the present study incidence is 2%, Phelan el al also reported scar dehiscence in 1.9% cases. (ACOG)[16] estimated the risk of uterine rupture in women with a previous CS and conclude that the lower segment caesarean scar has a minimum risk (0.2-1.5%). There was no maternal mortality in present study. Neonatal morbidity in the form of a low Apgar score (<6) was observed in 4% babies. All the four babies born with low Apgar score were kept in the neonatal intensive care unit and were discharged from hospital with the mother's.

In spite of the ongoing efforts by the government to promote the norm of the small family, there is a perennial desire for more number of children, especially male children among the rural uneducated population. Many women do not accept sterilization even during the second CS.[17] This decision exposes them to the development of complications related to scar rupture in subsequent pregnancy and labor. If women are explained about the option of VBAC and talked about the risk associated with a repeat CS, many CS_S can be avoided. VBAC should be encouraged in selected cases to reduce the risk of a repeated CS.

Conclusion:

Majority of the cases of previous CS done for nonrecurrent indication can be delivered safely by the vaginal route, without any major complication to the mother and the newborn, in an institution having facilities for emergency CS_S. It has been proved to be a safe alternative to repeated elective CS.

Reference:

1. Cragin EB. Conservation in obstetrics. N Y MED J 1916;104-3.
2. AIMS: VBAC-on Whose Terms?; AIMS Journal.2002.Vol 14 No.1; https://www.aims.org.uk/journal/item/vbac-on-whose-terms.
3. Caesarean childbirth, Summary of an NIH consensus statement. Br Med J(Clin Res Ed)1981 May 16; 282(6276)1600-4
4. Jennifer A. Tessmer- Tuck; Predicting Vaginal Birth after Cesarean section: A cohort Study; February 11,2014; Gunecol Obstet Invest204;77;121-126.
5. Shipp TD, Zelop CM, Repke JT, Cohen A, Lieberman E. Inter delivery interval and risk of symptomatic uterine rupture. Obstet Gynecol 2001; 97:175-80.
6. Jansen FW, Van Roosmalen J, Keirse MJ, Bennebroek Gravenhorst J.

Vaginal delivery following caesarean section. Ned Tijdschr Geneeskd 1989; 133:666-9.
7. Phelan JP, Clark SL, Diaz F, Paul RH. Vaginal birth after caesarean. Am J Obstet Gynecol 1987; 157:1510-5.
8. Riva HL, Teich JC. Vaginal delivery after caesarean section. Am J Obstet Gynaecol 1961; 81:501.
9. Dayal V. Trial of vaginal delivery in cases of single previous cesarean section. J Obstet Gynecol 1985; 35:445-50.
10. Allahabadia GN, Ambiye VR, Shanbaug AM. Vaginal birth following caesarean section. J Obstet Gynecol India 1989; 39:782-6.
11. Landon MB, Leindecker S, Spong CY, Hauth JC, Bloom S, Varner MW, et al. The MFMU caesarean registry: Factors affecting the success of trial of labor after previous caesarean delivery. Am J Obstet Gynecol 2005; 193:1016-23.
12. Demianczuk NN, Hunter DJ, Taylor DW. Trial of labor after previous cesarean section. Prognostic indicators of outcome. Am J Obstet Gynaecol 1982; 142:640-2.
13. Pickardt MG, Martin JN, Maydrech EF. Vaginal birth after caesarean delivery: Are there useful and valid predictors of success or failure? Am J Obstet Gynecol 1992; 166:1811-9.
14. Vidyadhar B Bangal,Purushottam A Giri, Kunaal K Shinde; Vaginal Birth after Cesarean Section; North American Journal of Medical Sciences; February 2013; Volume 5; Issue 2; Pages 140-44.
15. Obara H. Minakami H, Koike T, Takamizawa S, Matsubara S, Sato I. Vaginal birth after caesarean delivery. Results in 310 pregnancies. J Obstet Gynaecol 1998; 24:129-34
16. ACOG practice bulletin. Vaginal birth after previous cesarean delivery. No. 2, October 1998. Clinical management guidelines for obstetrician-gynecologists. American College of Obstetricians and Gynecologists. Int J Gynaecol Obstet 1999; 64:201-8