

# VBAC; Its Safety and Outcome

Noreen Akmal and Naseem Akhtar

Department of Obstetrics & Gynaecology. Fatima Jinnah Medical College / Sir Ganga Ram Hospital, Lahore

## ABSTRACT

An observational, prospective study of 509 pregnant women presenting to Unit-3, Department of Gynecology and Obstetrics, Sir Ganga Ram Hospital/Fatima Jinnah Medical College during one year starting from February 2005 was carried out. Aim of the study was to assess the safety of VBAC (Vaginal Birth After Cesarean), and its final outcome, in patients who had previously undergone a Cesarean Section, with or without a history of a previous successful vaginal delivery. The data analysis and results showed VBAC was successful in a significant number of women, indicating that even women who have had previous CS should be strongly considered for vaginal deliveries in any of the subsequent pregnancy.

## INTRODUCTION

The question whether a trial of normal vaginal delivery should be given to women who have previously undergone a CS has been there before the gynecologists since long<sup>1,2</sup>. With the advent of better hospital care, better intra and post operative facilities and maybe dues to some other financial and social factors, the rate of CS has risen in Pakistan as well as around the world. In 1970s and before, when a woman underwent a CS, the subsequent deliveries were automatically by CS as she was considered to be a candidate of vaginal delivery. In the past 10-15 years there has been a trend that even after a CS; attempt/trial for a vaginal birth should be made. Thus the term VBAC (Vaginal Birth After Cesarean) is not new in any of the obstetric departments of any good hospital. Although there are some factors which, in some women, increase the risk of uterine rupture and other complications, and VBAC should not be attempted in such women, generally it is agreed that VBAC can be very safe and successful. And more and more attempts for VBAC should be made on more and more pregnant women, after proper screening and where indicated. The present study was carried out to assess the safety and outcome of labor whether spontaneous, induced or augmented; in a study population of 509 patients, who had a history of one previous CS. Of these 509 women, 329 women also had a history of a previous

successful vaginal delivery, in addition to the one CS. The aim and objective of the study was to determine the safety and success of vaginal delivery in women who had undergone a CS previously.

## MATERIALS AND METHODS

During the study period, depending on the inclusion and exclusion criteria a total of 509 were included in the study. All the pregnant women who met the inclusion criteria or did not fall in the exclusion criteria were examined prospectively and their data was collected on specially designed proformas. Inclusion criteria included consent of the patient to be admitted in the study, one previous CS, no other active infection, pathology or intervention (other than CS) to the uterus and adequate pelvis. Women with previous CS with extension of incision/tear, classical CS, past history of hysterotomy and those with any other medical disorder like HTN or DM were not included in the study. Results were analyzed using SPSS version 10. Of the 509 patients included in the study 329 (64.63%) had a history of at least one previous vaginal delivery while 180 (35.36%) did not have a history of vaginal delivery prior to this admission. The study population was divided into two main groups, one having the history of a previous vaginal delivery and the other having no previous history of vaginal delivery. Both these groups were given a trial of VBAC, and their safety and success was

**Table 1: Important characteristic observed.**

Characteristic observed	Patients with history of vaginal delivery (n=329)		Patients with no history of vaginal delivery (n=180)		P value
	No.	%	No.	%	
Maternal age					
< 30	205	62.5	129	71.6	
> 30	124	37.6	51	28.3	
Previous CS					
Emergency	237	72.3	129	71.66	
Elective	92	27.9	51	28.33	
Spontaneous onset of labour					
Yes	261	79.3	102	56.66	
No	62	18.8	78	43.33	
VBAC successful					
Yes	299	90.8	129	71.66	<0.001
No	30	9.1	51	28.33	

recorded. Table 1 shows the important characteristics of both the groups and the result and outcome of the VBAC trial.

## RESULTS

Table 1 shows the outcome and safety of the VBAC trial. A total of 509 women were included in the study, of which 205(62.5%) were more than 30 years of age and 124(37.6%) were below 30 years of age. Of these 329(64.63%) were those who had a history of a previous vaginal delivery and 180 (35.36%) did not have the history of a previous vaginal delivery. In the group of women having a history of a previous vaginal delivery along with one CS, 237(72.3%) underwent an emergency CS while the remaining 92(27.9%) had an elective CS. Labor was spontaneous in onset in 261(79.3%) of the women having a previous vaginal delivery and 102(56.66%) of those not having a previous vaginal delivery. Labor had to be induced in 62(18.8%) and 78(43.33%) of the women in respective groups. On the whole VBAC was successful in 299(90.8%) of the women with a previous history of vaginal delivery as compared to 129(71.66%) of those who did not have the history of a previous vaginal delivery.

## DISCUSSION

A few decades back, a patient who presented to the ward with a history of a previous CS was not even considered for a vaginal delivery. But now during the previous 10-15 years the trend has changed all over the world and a lot is being talked about Vaginal Birth After Cesarean (VBAC). All over the world it is now considered safe<sup>1-4</sup>. The trends are also changing in Pakistan. But unfortunately there is some hesitancy among some of the doctors towards and safety and likely outcome of trying to go for VBAC. Another fact is that due to various reasons including bolder surgeons, better and safe surgical and anesthetic techniques and many other factors discussion of which would be out of the scope of this study, the rates of CS have been rising during last two decades not only in Pakistan but all over the world<sup>5</sup>. On the other hand, there is an understanding among the doctors that attempts should be made to reduce the number of CS. An important area where the number of CS can be significantly reduced is the group of women who have had a CS, and wish to have a trial of labor and subsequent vaginal delivery. A lot of work has been done in this regard, all over the world. This study was carried out to assess and establish the outcome of safety of VBAC in Pakistan, in

settings of a government tertiary care centre. The results show that vaginal delivery can be carried out safely in women who have had a previous CS. These results are consistent with many of the other studies carried around the world<sup>6,7</sup>. An important factor which was noted during the study is that a higher number of women had undergone an emergency CS (72.3% and 71.66% respectively in both groups) as compared to similar studies carried out in developed countries. Further studies should be carried out in Pakistan to determine the exact reasons for a higher rate of emergency (rather than elective) CS in Pakistan as compared to more developed countries. Some of the contributing factors for this could be handling by untrained health staff, late presentation to a proper health facility etc. On the whole VBAC was successful in a very significant number of patients. In the group of women having a previous history of vaginal delivery 90.8% had a successful VBAC. And among the women who did not have a previous vaginal delivery VBAC was possible in 71.66% of the women. This clearly shows that VBAC is safe and its success rates are significant, indicating that VBAC should be tried in as many women as possible. It has lesser and lesser complications, is cost effective in a developing country like Pakistan and saves a lot of health resources. Not only is it technically a better mode of child birth but according to one study it also has emotional implications and a vaginal birth is more satisfying for a mother. Dunn EA and O'Herlihy C carried out a study in Europe which clearly showed that any mother who had experienced both modes of delivery would prefer vaginal delivery in any subsequent child births, as they found it to be more satisfying emotionally<sup>8</sup>. This study, thus, strengthened and proved the view, already gaining popularity<sup>9,10</sup>, that VBAC is safe and should be the preferred mode of child birth.

### CONCLUSION

Women who have had a previous CS, due to any reason, should be strongly considered for a subsequent vaginal delivery unless contraindicated due to any obvious reason. VBAC is safe and has significantly high success rate.

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**The Authors:**

Noreen Akmal  
Assistant Professor of Obstetrics & Gynaecology,  
Fatima Jinnah Medical College/  
Sir Ganga Ram Hospital,  
Lahore.

Naseem Akhtar  
Registrar  
Department of Obstetrics and Gynaecology  
Sir Ganga Ram Hospital,  
Lahore.

**Address for Correspondence:**

Noreen Akmal  
Assistant Professor of Obstetrics & Gynaecology,  
Fatima Jinnah Medical College/  
Sir Ganga Ram Hospital,  
Lahore.  
noreenakmal@hotmail.com