To Determine Incidence & Favorable Factors of Vaginal Birth after Caesarean

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ABSTRACT
Background & Methods: The aim of the study is to determine incidence & favorable factors of Vaginal birth after Caesarean. Patients who reached in hospital were already in established labour. Carefully examination done, patient prepare for cesarean section. Blood arranged.
Results: Any prior vaginal delivery increase chance of VBAC. In our study 17 % patient having prior VBAC. 21% having prior normal vaginal delivery. In our study incidence of VBAC found in: 100 previous c-section admitted in which VBAC were 08, incidence is 08.
Conclusion: According to the World Health Organization, a rate of 10% to 15% may be more desirable. Repeat c-section is not always necessary; successful VBAC could decrease these numbers, but not all women who are eligible attempt it. In 1995, only 32% of candidates attempted vaginal birth after cesarean section. The increase in c-sections over the past decades is attributed to many factors including fetal monitoring, which indicates when the fetus is in danger, medical-legal reasons, and delivery of breech infants. In patients who had a c-section performed because of dystocia (abnormal or difficult labor), the success rate is lower.

1. Introduction and Background

Vaginal birth after caesarean (VBAC) refers to the practice of delivering a baby vaginally (naturally) after a previous baby has been delivered through caesarean section (surgically). A caesarian section leaves a scar in the wall of the uterus[1]. This scar is weaker than the normal uterine wall, so if the woman goes in labor in a subsequent pregnancy there is a higher than normal risk of a ruptured uterus. Because of this risk an attempt at normal vaginal delivery was for most of the 20th century considered unacceptably risky. This opinion was challenged by many studies showing that many women with previous caesaran sections did have successful vaginal deliveries. In the 1980s and 1990s there was a strong movement to encourage attempts at vaginal delivery after caesarean section[2]. For a while some regulatory bodies in the US monitored the percentage of those women with previous caesareans who were offered vaginal delivery, using this number as a measure of the quality of obstetrical care. Studies in the 1990s confirmed that vaginal delivery after previous caesaran section was indeed much riskier than average[3]. The American College of Obstetrics and Gynecology issued guidelines which identify VBAC as a high-risk delivery requiring the availability of an anesthesiologist, an obstetrician, and on operating room on standby. In the 1990s the rate at which VBAC was tried fell from 26% to 13%[4].

Risks of cesarean section include a higher chance ofre-hospitalization after birth, infertility, uterine rupture in the next pregnancy, injury to the baby, premature birth and respiratory problem& ill. the baby, as well as bonding and breastfeeding difficulties. The risk of uterine rupture in a WAC is, 0.2% to 1.5%. Because of the risks involved, many health insurance companies will not support VBAC. Today only about 10% of eligible women in VBAC[5-7].

The risk of infection doubles if vaginal delivery is attempted but results in another cesarean. All complications of cesarean section are more likely and more severe if it is done as an emergency after a failed attempt at vaginal delivery rather than as a planted operation[9].

According to the Centers for Disease Control and Prevention (CDC), more than 29% of births in the c-sections, and repeat cesareans account for approximately one-third of these. According to the World Health Organization, a rate of 10% to 15% may be more desirable[10-12]. Repeat c-section is not always necessary; successful VBAC could decrease these numbers, but not all women who are eligible attempt it. In 1995, only 27% (about 76,000) of candidates attempted vaginal birth after cesarean section.

2. Material and Methods

Present study was carried out at Dr. Laxminaryan Pandey Medical College, Ratlam, M.P. on 100 cases of VBAC. Record of all patients was retrieved, variables like age, parity, indication of previous cesarean section, co-existing condition in the present admission and outcome of pregnancy, interdelivery, period were tabulated for all patients and whether the patient was in labour or not at the time of admission. Those patients who reached in hospital were already in established labour. Carefully examination done, patient prepare for cesarean section. Blood arranged.

Decision taken from higher authority for short trial in active labour.

- Intermittent auscultation of foetal heart every 15 minutes in first stage and every 5 minutes in second stage of labour.
- Maternal monitoring was done by hourly recording of maternal vital parameters, particularly pulse, blood pressure and urine output.
- A close watch for early recognition of scar dehiscence by identifying maternal tachycardia, vaginal bleeding, scar tenderness and foetal distress.

If uterine contractions were not efficient, intravenous oxytocin infusion was started after artificial rupture of membranes. Parenteral analgesics were administered as epidural was not administered routinely.

3. Result

Table No. 1: Distribution of case according to Age

Age	VBAC		P Value
	No.	%	
< 20 years	00	00	.047962
20-29 years	88	88	
30-39 years	11	11	
> 39 years	01	01	

Maximum are between 20-29 – 88%, 30-39 year – 11%, Only 1 patient was beyond 39 year. No VBAC before 20 years recorded in our stud, so VBAC very less after age of 40 years. The chi-square statistic is 8.3069. The p-value is .047962. The result is significant at $p < .05$.

Table No. 2: Birth Weight After Delivery

Birth Weight	VBAC		P Value
	No.	%	
< 1.5 kg	05	05	< .00001
1.5 – 2.4 kg	29	29	
2.5 – 4.0 kg	66	66	
> 4.0 kg	00	00	

Baby weight significantly affect outcome of VBAC. In our study 66% having baby weight between 2.5-4 kg 29% between 1.5 – 2.4 kg 3.735 below 1.5 kg 0% beyond 4 kg. The chi-square statistic is 57.278. The p-value is < .00001. The result is significant at $p < .05$.

Table No. 3: Prior Vaginal Delivery

Prior Vaginal Delivery	VBAC		P Value
	No.	%	
Prior NVD	17	17	.415426.
Prior VBAC	21	21	

Any prior vaginal delivery increase chance of VBAC. In our study 17 % patient having prior VBAC. 21% having prior normal vaginal delivery. The chi-square statistic is 0.6632. The p-value is .415426. The result is not significant at $p < .05$.

Table No. 4: Assisted VBSC

Assisted by	VBAC		P Value
	No.	%	
Episiotomy	76	76	.028761
Breech	03	03	
Ventous	11	11	
Forceps	00	00	

In our study 76% patient assist by episiotomy, 11% by ventous assist and 03% by Breech. The chi-square statistic is 38.5447. The p-value is .028761. The result is significant at $p < .05$.

Table No. 5: Incidence of VBAC

Incidence	VBAC	
	No.	%
Previous Section	100	08
VBAC	08	

In our study incidence of VBAC found in: 100 previous c-section admitted in which VBAC were 08, incidence is 08.

4. Discussion

In this retrospective study, the success of VBAC was 55%. There were no significant differences in outcome between delivery via intrapartum CS and delivery via vaginal birth. Cervical opening and effacement were the most significant factors influencing the success of VBAC, while other factors were gravidity, parity, and prior vaginal delivery[13-15].

Several studies have investigated factors associated with successful VBAC. For example, factors associated with a higher success rate include management by a certified midwife, presentation after a membrane rupture or in the active phase of labor, and greater cervical dilatation. Success rates have been reported to be the lowest in patients with meconium-stained amniotic fluid or a prolonged labor (.4 hours). In these studies, patients were selected according to certain criteria, before the onset of labor, or earlier in the antenatal period. Other studies have focused on determining patients suitable for VBAC during the antenatal period[16].

In a study investigating 515 patients, a model was developed based on six definitive criteria, which had a 72% successful VBAC rate. Those criteria included prepregnancy body mass index, previous vaginal delivery, previous nonprogression of labor, Caucasian race, induction during the present delivery, and an estimated fetal weight P.90.3 Nevertheless, in cases where the patient presents in the active phase or second stage of labor and there is no data regarding the indication for the previous CS or antenatal history, the decision to proceed with a vaginal birth can be difficult for the physician, although the decision can be made more easily if delivery is imminent. Consistent with this, in the present study, the strongest factor predicting vaginal delivery was presentation during the advancing active or second stage, after experiencing labor pains at home[17]. All studies of cervical factors have found that favorable cervical factors have been significantly associated with a successful trial of labor. Flamm and Geiger demonstrated that women with dilatation greater than 4 cm on admission were significantly more likely to have VBAC compared with those with dilatation less than 4 cm. Similarly, Macones et al and Pickhardt et al showed that the likelihood of VBAC increased significantly with each centimeter increase in cervical dilation. Flamm and Geiger also found that cervical effacement greater than 25% was associated with a significantly higher likelihood of vaginal delivery[18]. Similar to Flamm and Geiger's findings, McNally and Turner found that those with effacement of 100% had a fivefold increase in the likelihood of VBAC compared with those with effacement less than 100%. The current study demonstrated that cervical opening and effacement were associated with the success of VBAC (odds ratio [OR]: 2.056 and 1.106, respectively). Increasing parity was noted to be associated with an increase in VBAC rate. There is consistent evidence to show that a prior vaginal delivery is associated with a higher rate of successful VBAC compared with patients with no prior vaginal delivery. The current study has shown that women who had a prior vaginal delivery had a fourfold greater likelihood of VBAC.

5. Conclusion

According to the World Health Organization, a rate of 10% to 15% may be more desirable. Repeat c-section is not always necessary; successful VBAC could decrease these numbers, but not all women who are eligible attempt it. In 1995, only 32% of candidates attempted vaginal birth after cesarean section. The increase in c-sections over the past decades is attributed to many factors including fetal monitoring, which indicates when the fetus is in danger, medical-legal reasons, and delivery of breech infants. In patients who had a c-section performed because of dystocia (abnormal or difficult labor), the success rate is lower. Incidence of VBAC found in: 100 previous c-section admitted in which VBAC were 08, incidence is 08.

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