VAGINAL BIRTH AFTER PREVIOUS ONE CAESAREAN SECTION IN A PRIVATE TEACHING HOSPSITAL

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ABSTRACT

Objectives: The objective of the study was to assess the factors indicating success in vaginal delivery after previous one C-Section.

Material and Methods: The study was carried out to assess the factors indicating successful VBAC (vaginal birth after caesarean section). Over a period of two years from Jan 2011 to Dec 2012 at the department of Obstetrics and Gynecology Al-khidmat Teaching Mansoorah Hospital, Lahore affiliated with University College of Medicine and Dentistry

Results: The frequency of normal vaginal delivery after previous 1 C-Section was 47.29% while 52.7% had repeat C-Section. The only statistically significant factor which could favor successful vaginal delivery was history of previous vaginal delivery prior to previous C-Section. Patients who had previous C-section for bad obstetrical history were delivered by repeat caesarean section. Majority of the patients included in the study group were booked belonged to educated middle class families having awareness of the complications that may occur during trial of labor. Provision of adequate antenatal health care services, timely identification of high risk cases, use of electronic fetal monitoring, involvement of senior , skilled and experienced personnel in the management of obstetrical emergencies are responsible for successful trial of Labor i.e. almost 50% patients delivered vaginally after previous I C-Section.

Thus in order to increase the rate of NVD frequency of trial of labor must be increased with the goal of vaginal delivery but without compromising maternal and fetal health.

Conclusion: Almost 50% of the patients with previous one C-Section can be delivered normally especially if they had delivered vaginally previously. The decision of VBAC is complex and ultimately resides with the women and her Obstetrician after counseling the patient regarding all the risk - benefit profile.

Key words: Caesarean section, Delivery, NVD, Pregnency.

INTRODUCTION

Caesarean section is a major o obstetrical operation. It is emphasized that once a caesarean always a caesarean[1].This dictum continued to dominate obstetric care for along time but this is only true for the classic C-section. But since the introduction of Low segment caesarean section it is no longer true. Low segment caesarean section gives a strong scar to the uterus so that subsequent pregnancy can safely be held and may deliver vaginally.

Furthermore, provision of adequate antenatal health care services, timely identification of high risk cases, use of electronic fetal monitoring and involvement of senior skilled obstetricians have now made this dictum redundant. However the rare but potentially catastrophic outcome of VBAC is uterine rupture[2-4,5,6-8,9,10.]Therefore, it is now safe to say that once a C-section always a hospital delivery.

By careful monitoring of the mother and the fetus during trial of labor and proper selection of the patient for VBAC, success rate VBAC can be improved.

In a study from UK the rate of attempted VBAC was 52.2% while in USA it was estimated recently that 20% of the women choose this option[11,12]In European countries rates of upto 70% have been reported[13,14]. In another study from USA the overall success rate of a VBAC is approximately 75% with a range of 60-80%[15,16,17]. A study from Netherlands documents 72%

successful VBAC[18]. If the high rate of C-Section. is to be lowered rate of elective procedures must be reduced by increasing the frequency of trial of labor with the goal of vaginal delivery[19] The trial of labor is a reasonable option for many pregnant women with prior one LSCS[20]. .An unscarred uterus is less liable to rupture as compared to a scarred one.

MATERIAL AND METHOD

The study was carried out to assess the factors indicating successful VBAC (vaginal birth after caesarean section). Over a period of two years from Jan 2011 to Dec 2012 at the department of Obstetrics and Gynecology Al-khidmat Teaching Mansoorah Hospital, Lahore affiliated with University College of Medicine and Dentistry Lahore. This hospital receives patients from the city as well as from neighboring rural area. Total no of patients with previous I C-Section were 148 out of which 70 patients delivered vaginally. This was a retrospective study. The source of information was the record of labor room, operation theater, antenatal and post natal wards. All of the patients were allowed to go into labor spontaneously or a C-Section planned because of proper indication. None of these patients underwent induction of labor. If labor progressed well it was allowed to proceed unassisted or assisted in the form of episiotomy and/or vacuum extraction. However, failure to progress or any other complication was managed by emergency C-Section. All the patients with more than one caesarean section were not included in the study.

Those patients who were postdated were offered elective C-section. Those who insisted on vaginal delivery were allowed to wait till 41 completed weeks of gestation for spontaneous onset of labor but again without any induction. After that time an elective C-Section. was carried out.

All the patients undergoing trial of labor were prepared for an emergency C-Section by cross matching blood. All the patients for trial of labor had maternal as well fetal monitoring. Blood pressure, pulse ,uterine contractions and scar tenderness were monitored at regular interval to pickup early signs of uterine rupture and fetal distress Intravenous oxytocin infusion and artificial rupture of membranes were used in cases of uncoordinated uterine contractions. Every possible effort was made to shorten second stage of labor. Assistance was provided in the form of either episiotomy or vacuum extraction.

RESULTS

A total of 148 patients with previous one C- section were included in the study. Out of which 70(47.29%) patients delivered vaginally while 78(52.70%) patients had repeat C-Section. Results are documented in table :

Table-1: Outcome of patients with previous one C-section.

Total no of patients with previous one C-section	148	100%
NVD	70	47.30%
Repeat C-section	78	52.70%
	Total:	100%

Major indications for the previous C-section were failure to progress 40(27.02%), Fetal distress 35(23.64%), CPD 23 (15.54%)and Breech presentation 16(10.8%)

Table-II: Indications of previous C-section. n=148

Indications	**No of patients**	**Percentage**
Failure to progress	42	28.37%
Fetal Distress	37	25.00%
CPD	23	15.54%
Breech presentation	16	10.8%
PIH	8	5.40%
On demand	8	5.40%
Twins	7	4.72%
BOH	4	2.70%
PROM+ chorioamnionitis	3	2.02%
Total:	148	100%

Indications for repeat C-Section were failure to progress 19(24.35%) CPD 18(23.07%) Fetal distress 15 (19.23%), Breech presentation 5(6.41%). One interesting indication was a caesarean on demand 5(6.41%). 5 patients who had first caesarean for the indication of CPD, delivered vaginally.

Table-III: Indication for repeat C-Section. n=78

Indications	**No of patients**	**Percentage**
Failure to progress	19	24.35%
CPD	18	23.07%
Fetal Distress	15	19.23%
Breech presentation	5	6.41%
On demand	5	6.41%
BOH	4	5.12%
Placenta Praevia	4	5.12%
PIH	3	3.84%
Post dated	3	3.84%
Mal presentation	2	2.56
Total:	78	100%

One most convincing factor in the outcome was history of previous vaginal delivery Table-IV shows effects of previous vaginal delivery on the outcome of current pregnancy. Out of 92 patients who had a previous vaginal delivery 50 (54.34%) patients delivered vaginally while 42 (45.65%) had repeat C-Section. On the other hand 56 patient had no previous vaginal delivery. Out of them 28 (50%) had VBAC and remaining (28/50%) delivered by repeat C-Section. 3(3.84%) patients having postdated pregnancy delivered by repeat C-Section. They were not allowed to continue beyond 41 completed weeks of gestation.

Table-IV: Effects of Previous Normal Delivery On The Outcome Of Pregnancy

Description	No of patients	Percentage
(a) Patients with previousNVD	**92**	**100%**
NVD	50	54.34%
C-Section	42	45.65%
(b) Patients without previous NVD	**56**	**100%**
NVD	28	50%
C-Section	28	50%

Age of patients ranged from 18 to 38 years. Maximum no of patients belong to 20-25 years age group. Parity of patients ranged from Para 1 to para-8. Highest no of patients who underwent C-Section had 2-4 children

Table-V: Age of the patients. (n=148)

Maternal Age (Years)	No of patients	percentage
Blow 20	18	12.16%
20-25	54	36.39%
26-30	40	27.02%
31-35	25	16.89%
Above 35	11	7.44%
Total:	**148**	**100%**

Max no of patient belonged to 20-25 years age group.

There was no maternal death in the study group. One patient(0.67%) had scar dehiscence which was then repaired. The fetus was fresh still birth. The perinatal mortality during the study period was 27/1000 live birth. 3 babies (2.02%) were born alive but died after words in NCU either because for prematurity or some congenital abnormality. 1 baby (0.67%) was still birth because of scar dehiscence.

DISCUSSION

For a long time, Craigin's dictum of "once a C-Section, always a "C-Section" dominated obstetric care after one previous C-Section. However this was true in a period when Classic C-Section was in practice. It was then found safe in many cases to give the patient a chance to progress into labor without immediately resorting to C-Section. For more than 30 years planned vaginal birth after caesarean section (VBAC) has been offered as an option to women with prior caesarean section. This was mainly driven by the need to lower the rising rates of Caesarean section[21,22]. It is advised that VBAC labors are undertaken in hospital with facilities for emergency surgery and advanced neonatal resuscitation with automatic electronic fetal monitoring and intravenous access[23].

Various studies have shown that black women are more likely than white women to attempt VBAC[24] while two other studies have reported that women of low socio economic status are more likely to accept trial of labor after previous I C-Section[25,26]. Careful maternal and fetal monitoring including CTG's is an essential component for Trial of labor after C-Section to intervene in cases of impending rupture / fetal distress. Because the rare but potentially catastrophic complication of uterine rupture cannot be ignored. It is an important reason that many hospitals and doctors are not offering VBAC[2,4,6,8,9,10].It is stated that the rate of uterine rupture is 5.2/1000 for spontaneous labor which rises to 24.5/1000 for labor induced with prostaglandins[27].That's why it was not the policy of our hospital to induce patients with prostaglandins but instead spontaneous labor was allowed. Careful monitoring determined further course of action. Thus (47.30%) patients with previous1 C-Section delivered vaginally. However, this success was significantly more in patients who had at least one previous vaginal delivery.

In USA overall rate of VBAC(i.e. successful VBAV in all women with a previous caesarean section) decreased from 24% in 1996 to 8% in 2010[28,29].But another study from USA quotes overall success rate of having a vaginal delivery after caesarean section is approximately 75% with a range of 60-80%[15,16,17]. But our local data from tertiary care hospital shows 33.5% VBAC[30] and almost identical figures were reported by Yousaf & colleagues[31].

If the C-section was carried out for bad obstetrical history repeat C-section was the best option. But 5 patients who had previous caesarean for the indication

of CPD delivered vaginally. Other studies also suggest that there are less chances of successful VBAC if indication for previous C-Section was cephalopeluicdisproportion.[30]Non recurrent indications of previous C-Section do not necessarily end up with a subsequent C- Section and hence has high rate of success of vaginal delivery.[30.]

In our study one patient had scar dehiscence which was then repaired. The risk of uterine rupture after a prior transverse low segment caesarean section is about 1% whereas the risk of rupture of uterus in previous classical C-Section is 8-10%[32]. Although risk of maternal morbidity and mortality increases with uterine rupture no maternal death occurred during our study period.

In our study it was not the policy to delay delivery beyond 41 weeks of pregnancy. Thus 3 patients had repeat C-Section for the indication of postdated pregnancy with previous 1 C-Section.

Every labor and delivery carries risks to both the mother and baby and obstetric care is centered on identifying risks, counseling women on the relative risks of various option and seeking to adopt the choice that carriers a favorable risk - benefit profile.

Perinatal mortality during study period was 27/1000 live births. Only 1 baby was still born because of scar dehiscence. Although uterine rupture can result in significant maternal morbidity, including blood transfusion and hysterectomy, it is the neonatal death and neurologic injury that is the major concern for doctors and patients. Approximately 6% of the uterine rupture will result in perinatal death[16]

CONCLUSION

Almost 50% of the patients with previous one C-Section can be delivered normally especially if they had delivered vaginally previously. The decision of VBAC is complex and ultimately resides with the women and her Obstetrician after counseling the patient regarding all the risk- benefit profile.

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