REVIEW ARTICLE

OUTCOME OF LABOUR FOLLOWING PREVIOUS CAESAREAN SECTION IN BRIMS HOSPITAL, BIDAR

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INTRODUCTION: There has been a significant increase in the number of primary caesarean section in recent times, and therefore, the number of women with a pregnancy after a prior caesarean section has also increased.[1] The effective and safe use of caesarean section as a mode of delivery has received a lot of attention since decades. The National Institutes of Health (NIH) held a Consensus Conference on Caesarean Childbirth in response to concerns about a three-fold increase in the rate of caesarean deliveries in the United States, based on which they proposed vaginal birth after caesarean (VBAC) as a mechanism to reduce the use of caesarean section.[2]

Recent reports have shown that VBAC is a reasonable and safe choice for the majority of women with prior caesarean, and after clinical assessment, appropriate subjects, after assessing the risk: benefit ratio can be considered for a trial of labour.[2, 3, 4]

According to the results of a systematic review by Brill and Windrim, a non-recurrent indication for previous caesarean section, such as breech presentation or fetal distress, is associated with a much higher successful VBAC rate than recurrent indications like cephalopelvic disproportion (CPD). Prior vaginal deliveries are associated with excellent prognosis of successful VBAC, especially if they follow the prior caesarean section.[5]

We undertook the current study to analyze the outcome of labour following previous caesarean section.

MATERIALS AND METHODS: The current study was a clinical study of analysis of 600 cases of labour following previous caesarean section, carried out in the Department of Obstetrics and Gynecology, Government General Hospital, Bidar attached to Bidar Medical College (BRIMS) from January 1, 2014 to June 30, 2014.

Cases were admitted as antenatal and those in labour. The cases were properly evaluated clinically and managed according to individual suitability. Repeat Caesarean section was not performed routinely. A special note was taken on the nature and type of Caesarean section, indication, weight of the babies, post-operative morbidity and nature of deliveries following last Caesarean section. Booked and unbooked cases were admitted.

150 cases elective Caesarean section was performed in patients with cephalo-pelvic disproportion and other obstetric complications like severe pre-eclampsia toxemia, eclampsia, twins, mal presentations and subjects who had undergone previous two Caesarean sections.

200 cases were given trial for vaginal delivery and were monitored for fetal heart sound, mother's general condition like blood pressure, pulse and hydration status, nature of uterine contractions, progress of labour and scar tenderness. Per-vaginal examination was done as and when required to assess the progress of labour, including cervical dilation, effacement, position of

cervix, station of presenting part and consistency of cervix. Other parameters like time of rupture of membranes, distension of lower uterine segment, bowel distension and bleeding per vaginum were also looked for from time-to-time.

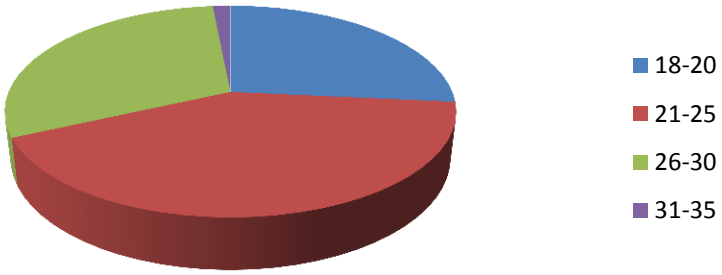
Each case was assessed individually. Cases with a fixed and engaged head with a ripe cervix were considered favorable. In addition, cases where head was not engaged, but pelvis was found to be adequate, and those with a history of normal delivery prior to caesarean section were also considered favorable for trial of vaginal delivery. If the cervical dilatation at the time of primary caesarean section was 6 cm, the lady can be expected to have full dilatation in the current pregnancy, and was taken for trial too. However, in case of any features of fetal or maternal distress, LSCS was considered appropriate.

Trial for vaginal delivery was not considered if there were associated problems like: previous difficult LSCS, precious child, bad obstetric history (BOH), post caesarean pregnancy with multiple pregnancy, abnormal position and presentation, anticipating a big baby, postoperative fever of long-stay in the hospital and incisional hernia.

RESULTS: During the current study period, there were a total of 3328 admissions to the labour room, of which there were 2136 deliveries. Total number of labour following previous caesarean section was 600. Of these, 350 were booked cases and the rest were unbooked.

The age-group of the subjects was between 18-35 years. The age-wise distribution is shown in figure 1.

Fig. 1: Age-wise distribution of the cases (in 6 months)



A total of 353 cases had undergone one caesarean section previously and 75 had undergone two caesarean sections. The indications were due to recurrent cause (contracted pelvis) and to non-recurrent cause in the rest. In the latter group, CPD was the commonest cause followed by foetal distress and mal presentation. Other less frequent causes included prolonged labour, uterine inertia, APH, cervical dystocia, PET and eclampsia, twins and post maturity.

Out of the 600 cases, elective caesarean section was done for 150 cases. 200 cases were given a trial for vaginal delivery, out of which in 171, delivered vaginally in 29 cases, trial had to be discontinued and caesarean section was performed. One case was admitted with rupture uterus and another 50 cases intra operatively scar dehiscence was observed.

Of the 171 cases, 150 delivered spontaneously, and the rest 21 required forceps /vacuum to cut short the second stage of labour. In a few cases, prostaglandin injection was given to prevent postpartum hemorrhage (PPH).

The mode of delivery in the current pregnancy with respect to indication is shown in table 1.

Indication	Vaginal delivery	Repeat caesarean section
CPD	18	126
Contracted pelvis	-	81
Foetal distress	60	30
Mal presentation	18	35
Prolonged labour	23	35
Twins	-	18
PET	10	27
Post maturity	-	10
eclampsia	-	27
Post maturity	-	10
Uterine inertia	-	10
Cervical dystocia	10	-
Placenta praevia	-	10
BOH	6	9
Others	26	-
Total	**171**	**428**

Table 1: Mode of delivery in the present pregnancy with respect to indication

[NOTE: 50 cases of scar dehiscence are observed during repeat emergency caserean section]

The indications for termination of trial for vaginal delivery were fetal distress, cervical dystocia and maternal distress.

Out of 600 cases, 428 undergone caesarean section one scar rupture in which repair was done and 50 cases intra operatively scar dehiscence noticed 171 delivered vaginally. In many cases third stage complications were observed and they are treated with inj. prostaglandin and blood transfusion. There were no cases of mortality in our study.

DISCUSSION: In our study, total admission was 3328 cases to labor room in that 600 cases are pregnancy with previous caesarean section cases in that 428 had undergone repeat caesarean section 171 delivered vaginally one patient admitted with rupture uterus and 50 cases intra operatively scar dehiscence observed.[6, 7] A gradual rise in the incidence of caesarean section has

been observed, probably because of increased use of caesarean section for fetal distress, intrauterine growth retardation (IUGR), pregnancy induced hypertension (PIH) and antepartum hemorrhage (APH).

Cephalopelvic disproportion was the commonest cause of previous caesarean section in our study.

In our study, out of 600 cases, 150 cases were selected for elective caeaserean section and 200 cases selected for trial for vaginal delivery. Among these, vaginal delivery was successful in 171 cases. Similar findings were observed in the study by Sagar et al. In a recent study by Jinturkar and Dongaonkar, 46.7% of women had a successful VBAC.[8] In a New Zealand hospital; the VBAC rate was 73% and was higher in women who had a previous VBAC.[9]

Previous caesarean section is a significant risk factor for uterine rupture and the degree of risk is directly related to the location and quantity of prior uterine incisions.[10] One cases in our study had uterine rupture but 50 cases of scar dishence was observed intra operatively during emergency repeat caesarean section. According to a US report, the risk of uterine rupture for all women with a prior caesarean delivery regardless of route of delivery is 0.3 percent (95% CI: 0.2 to 0.4%). This risk is significantly higher for women undergoing a trial of labour at 0.47 percent (95% CI: 0.28 to 0.77%); compared with women undergoing an elective caesarean section (0.026%; 95% CI: 0.009 to 0.082%).[2]

According to a recent French guideline, in women with a previous caesarean, the risks of maternal complications are rare and similar after a trial of labour after caesarean and after an elective repeat caesarean delivery.[3] There were no maternal deaths in our study. This is probably because in our hospital, we had availability of blood for transfusion, advanced anaesthesia facilities, experienced obstetricians and use of higher antibiotics. However, there have been reports of maternal mortality in previous similar studies.[7] A recent Cochrane review states that both VBAC and elective caesarean sections are associated with both risks and benefits,[11] and therefore we need to use appropriate clinical judgment before using either modes of delivery for our patients.

CONCLUSION: When a woman has delivered previously by caesarean section, she has two options in a subsequent pregnancy; either planned elective repeat caesarean section or planned vaginal birth. Multiple caesarean sections are associated with a higher risk of both short-term and long-term morbidity compared to vaginal deliveries. Moreover, in women who have already had a previous caesarean section, it is prudent to give a trial of labour unless contraindicated. In our study 200 patients were given a trial vaginal delivery was successful in 171, demonstrating that this mode is associated with good outcomes. Our hospital is referral hospital many cases admitted late in labour trial was given by themselves at home because of illiteracy in this area not using contraception method many pregnant less than 24 months in labour without previous discharge card unbooked case by integrity of scar was not known so was taken to caesarean section immediately without giving a trial in that we have noticed 50 cases of scar dehiscence during repeat caesarean section.

The need of complex infrastructure necessary to offer a safe vaginal birth after previous caesarean section fear of law suits and concerns about legal consequences of uterine rupture.

Obstetrician are sensitive to maternal and fetal health during trial of labor and privileged a faster decision of caesarean section.

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