Elective Caesarean Section for Breech Presentation in First Pregnancy and Subsequent Mode of Labour

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ABSTRACT

Objective: To determine the effect on subsequent mode of labour in case of previous elective caesarean for breech presentation in primiparous women.

Study Design: A cohort study.

Place and Duration of Study: Department of Obstetrics and Gynaecology, Liaquat University of Medical and Health Sciences, Jamshoro, Unit-1 and 1V, from January 2005 to December 2009.

Methodology: All women with previous one elective caesarean section for breech or cephalic presentation visited OPD for antenatal checkup or admitted in emergency in maternity or labour ward were recruited for the study, while the women with previous 2 and 3 caesarean section were excluded from the study. The case records of these women were reviewed thoroughly, and entered in predesigned proforma. The main outcome measure was mode of labour in current pregnancy decided electively or adopted in emergency.

Results: Out of the total, 131 (16.92%) women had previous elective caesarean section due to breech presentation while 643 (83.07%) women had previous elective caesarean section with cephalic presentation. Overall repeat caesarean section rate was 92 (70.22%) in women with previous breech presentation (n=131) in comparison with 475 (73.87%) women with previous cephalic presentation (n=643) (RR=1.04, p=0.32). The vaginal birth rate after elective caesarean section due to breech presentation was 39 (29.77%) in comparison with 168 (26.12%) cases with previous cephalic presentation (RR=0.98, p=0.83).

Conclusion: Women having elective caesarean section for breech presentation in their previous pregnancy had about 1 in 6 chance of having repeat elective caesarean section.

Key Words: Elective caesarean section. Influence. Subsequent mode of labour.
Adopting proper selection criteria and guidance regarding appropriate decision for mode of labour in primigravid women especially with breech presentation will decrease the rate of caesarean section in primi breech and rate of repeat elective caesarean delivery in subsequent pregnancies.

The objective of this study was to assess the impact of elective caesarean section for breech presentation and with cephalic presentation for different reasons on subsequent mode of labour.

**METHODOLOGY**

The study population was recruited by means of the simple random-probability sampling technique. At least second gravida women with one previous mode of delivery being elective caesarean section were selected. All these women who visited the outpatient department for their antenatal checkup or admitted in the ward in the emergency situation or in the labour ward with labour pains from January 2005 to December 2009 were considered. Women with more than one caesarean section were excluded from the study. At the completion of term, the mode of labour was decided from case-to-case basis. The case record of all those women was maintained on the pre-designed proforma after taking informed written consent. They were managed as routine protocol of the units and there was no deviation from the conventional mode of management.

Variables recorded were demographic characteristics, previous pregnancy details like precious pregnancy, fetal presentation, any complications during antenatal period like intrauterine growth restriction, details about the current pregnancy, any complication during antenatal period, decision about mode of labour, labour characteristics like spontaneous vaginal, instrumental vaginal delivery, emergency caesarean section, elective caesarean section during current pregnancy. The subsequent mode of labour for the second baby in the women with previous elective caesarean section with respect to presentation and different indications were compared.

The data was collected and analyzed on Statistical Package for Social Sciences (SPSS) version 20. Result is presented in the tables in the form of simple percentage, statistical test applied were chi-square for qualitative type of analyses, relative risks and p-value was calculated and its value < 0.05 was considered as significant.

**RESULTS**

Out of the total 774 women included in the study with previous one elective caesarean section, first elective caesarean section for breech presentation was done in 131 (16.92%) and for cephalic presentation in 643 (83.07%) cases. The spontaneous and instrumental vaginal delivery rates in previous breech presentation with elective caesarean section was 29.77% (n=39) versus 26.12% (n=168) with previous cephalic presentation, (RR=0.98, p=0.83). Repeat caesarean section rate in previous breech presentation was 70.22% (n=92) versus 73.87% (n=475) women with previous elective caesarean section due to cephalic presentation (RR=1.04, p=0.329, Table I). The fetal presentation in current pregnancy at repeat elective caesarean section were breech in 25 (19.08%) women with previous elective caesarean section due to same breech presentation in comparison with 11 (1.71%) who had previous elective caesarean section due to cephalic presentation. The rate of repeat elective caesarean section with cephalic presentation having previous elective caesarean section due to breech presentation was 31.29% (n=41) versus 47.43% (n=305) women having repeat elective caesarean section due to cephalic presentation (RR > 1, p < 0.001, Table II). The comparison of emergency caesarean rates due to different indication also found an insignificant association (p=0.302) as given in Table III.
Table III: Indication for emergency caesarean section in women with previous elective caesarean section due to breech versus cephalic presentation.

<table>
<thead>
<tr>
<th>Indication for repeat emergency caesarean section</th>
<th>Previous elective caesarean section</th>
<th>Relative risk</th>
<th>Chi-square test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For breech presentation</td>
<td>For cephalic presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fetal distress</td>
<td>n=131</td>
<td>n=643</td>
<td>0.8864</td>
<td>0.274</td>
</tr>
<tr>
<td>Obstructed labour</td>
<td>13 (9.92%)</td>
<td>74 (11.50%)</td>
<td>0.525</td>
<td>2.518</td>
</tr>
<tr>
<td>Other</td>
<td>7 (5.34%)</td>
<td>29 (4.51%)</td>
<td>1.184</td>
<td>0.170</td>
</tr>
</tbody>
</table>

DISCUSSION

The caesarean section rate as well as repeat caesarean section rate have increased globally. In this study, the vaginal breech delivery rate with previous elective caesarean section was less because most of these women did not have proper antenatal visits; they were afraid of repeated caesarean section; they came in emergency with active labour or even some times at the end of first stage of labour. Literature search shows that planned vaginal birth after caesarean section is relatively safe, Coughlan et al. showed that 84% women who had previous caesarean section due to breech presentation achieved a vaginal delivery when allowed to labour. This allows the health care managers to anticipate the changes in clinical practice for women who had caesarean section for breech presentation. In the present study, only 29.77% women achieved vaginal birth after previous caesarean section due to breech presentation. This vast difference could be due to the fact that majority of the women were referred from different maternity homes after failed trials or with scar tenderness while uncomplicated deliveries at maternity homes were not reported. The vaginal birth rate after caesarean section (VBAC) varied worldwide. In the USA, in 2002 the national rate was just 12.7%. Even small number of women who planned VBAC fewer actually had vaginal birth. Brazil is a more extreme example of highly medicalised child birth where VBAC is almost non existent. In Holland the VBAC rate reported was 56%. In this study, repeat elective caesarean section rate was more or less the same in previous elective caesarean section for breech presentation (50.38%) as for cephalic presentation (49.14%). Another study showed 10.2% caesarean section rate for breech presentation. There is an increased trend for elective caesarean section for breech presentation and this had higher chances of repeated caesarean section in subsequent pregnancies. In this study, commonest indications of repeat elective caesarean section were recurrent breech presentation, cephalopelvic disproportion, and contracted pelvis.

Ship et al. reported that primigravid women in whom elective caesarean section for breech presentation was done, were more likely to have subsequent vaginal birth in comparison with primigravid women with elective caesarean section due to other reasons. Moini et al. showed that there was a steady increase in elective operations that might explain the rise in overall caesarean section rate. Villar reported that caesarean section decreases the overall risk in breech presentation and risk of fetal death in cephalic presentation but increases the risk of severe maternal and neonatal morbidity and mortality in cephalic presentation.

CONCLUSION

Women having elective caesarean section for breech presentation in their first pregnancy have about 1 in 6 chance of having elective caesarean section in their subsequent pregnancy. The success rate of subsequent vaginal delivery with previous caesarean section due to breech presentation was 29.77%. The variations between previous elective caesarean sections due to breech versus cephalic presentation was not significant.

REFERENCES