

## **The Effect of Previous Successful Vaginal Birth After Cesarean Delivery on Subsequent Trial of Labor**

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**Objective:** The aim of our study was to determine the effects of previous vaginal deliveries after cesarean section on subsequent trial of labor.

**Methods:** This was a retrospective study from 1999 to 2002 where all women with a history of  $\geq 2$  previous vaginal deliveries before the cesarean section and with or without previous vaginal birth after caesarean section (VBAC) were reviewed to determine the VBAC rate and the effects of previous vaginal deliveries on the success rate.

**Results:** The study population comprised of four hundred-sixteen women with attempted VBAC. They were divided into two groups: 149 (35.82%) had no previous attempted VBAC and the last delivery was cesarean section (group 1), compared to 267 (64.2%) with previous  $\geq 1$  successful VBAC (group 2). The VBAC success rates were 86 % versus 95.5 % in groups 1 and 2 respectively ( $P=.001$ ). Twenty-one (14.1%) women were induced with prostaglandin E2 in group 1 as compared to 12 (4.5%) in group 2 ( $P=.001$ ). However, the indications of induction, labor augmentation and duration of labor between the two groups were not statistically different. There were 3 stillbirths, 2 with no fetal heart detected due to massive placental abruptions and 1 with major congenital anomaly. The fetal weight, number of macrosomic infants, Apgar score  $<7$  at five minutes and admission to neonatal intensive care unit (NICU) between the two groups were not statistically significant. There was no uterine rupture or dehiscence in both groups; but the length of hospital stay was prolonged and statistically significant in group 1.

**Conclusion:** women with  $\geq 1$  previous vaginal delivery after cesarean section are likely to have a higher rate of successful VBAC than those with no previous VBAC. Although, there was no uterine rupture or dehiscence, one should be cautious in interpreting the findings as the study is small. However, repeat trial of labor with previous VBAC is safe and further study is needed.