Abstract

Antenatal Scoring System in Predicting the Success of Vaginal Delivery after One Previous Caesarean Section

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Objective:
The study was to determine the predicting factors for a successful vaginal birth after caesarean section (VBAC) and to produce an antenatal scoring system for predicting the outcome of VBAC.

Methods:
A prospective observational study was conducted between February 2012 and September 2012.Patients who had a previous caesarean section (CS) and came for a delivery booking were included in this study. All women were scored for predicting the success of VBAC antenatally. The outcomes of the patients and newborns were reviewed. All data including maternal demographic, obstetric history and pregnancy progresses were analysed. An antenatal scoring system for predicting the success of VBAC was then developed.

Results:
A total of 186 patients were involved in this study. 142(76.3%) women had successful VBAC as compared to 44 (23.7%) women who failed. History of previous vaginal delivery (31.2%) and non-recurrent indications of previous CS (63.4%) were the significant predicting factors for successful VBAC. The other clinical predictors included were age less than 35 years old (61.2%), pre pregnancy BMI less than $30kg/m^2$ (61.3%) and estimated baby's weight less than 3.5kg at 36 weeks (65.0%), however they were statistically not significant. The scoring system tool that was built to predict the success of VBAC proposed a mean score of 4 out of 7. Ninety nine (53.2%) patients who had score more than 4 were successful in VBAC. This scoring system had a sensitivity of 69%, specificity of 18% and a positive predictive value of 73.3%. Maternal and perinatal complications in patient who had trial of VBAC were 7% and 1% respectively.

Conclusion:
The success rate of VBAC was 76.3%. Previous vaginal delivery and non-recurrent indications of previous CS were the significant predicting VBAC success. The antenatal scoring system is a tool that can be helpful during counseling in predicting the success of VBAC. Predictive score of 4 has an acceptable prediction towards a successful VBAC.