

Prolonged second stage of labor and maternal-neonatal outcomes: a retrospective cohort study.

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Abstract

Background: Prolonged second stage of labor is thought to be a risk factor for obstetric and perinatal complications. However, its effect on these complications is inconclusive across a broad range of studies.

Objectives: This study aimed to investigate the association of adverse maternal and neonatal outcomes with prolonged second stage of labor.

Methods: A retrospective cohort study design was employed to include 1055 systematically selected records of mothers who gave birth from September 1, 2014 to August 30, 2016. Data were entered, assessed using EPI – info and analyzed by SPSS computer software. Binary and multivariable logistic regression models were used to test the effect of prolonged second stage of labor on outcome variables.

Results: Adverse maternal and neonatal outcomes which were significantly associated with prolonged second stage of labor were: operative vaginal delivery (odds ratio: 2.8), cesarean delivery (odds ratio: 5.1), puerperal sepsis (odds ratio: 3.3) and third or fourth degree perineal tear (odds ratio: 2.8). Similarly, episiotomy, five minute Apgar score less than seven and meconium stained amniotic fluid were also significantly associated with prolonged second stage of labor.

Conclusion: Puerperal sepsis, operative vaginal deliveries, third or fourth degree perineal tear, low fifth minute Apgar score and meconium stained amniotic fluid were significantly associated with prolonged second stage of labor. Therefore close monitoring, follow-up and timely intervention is needed particularly for women with prolonged second stage of labor.

Key words: Prolonged second stage of labor, maternal outcome, neonatal outcome

