Risk factors for uterine atony/postpartum hemorrhage requiring treatment after vaginal delivery.

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Abstract

OBJECTIVE: We sought to identify risk factors for uterine atony or hemorrhage.

STUDY DESIGN: We conducted a secondary analysis of a 3-arm double-blind randomized trial of different dose regimens of oxytocin to prevent uterine atony after vaginal delivery. The primary outcome was uterine atony or hemorrhage requiring treatment. In all, 21 potential risk factors were evaluated. Logistic regression was used to identify independent risk factors using 2 complementary predefined model selection strategies.

RESULTS: Among 1798 women randomized to 10, 40, or 80 U of prophylactic oxytocin after vaginal delivery, treated uterine atony occurred in 7%. Hispanic (odds ratio [OR], 2.1; 95% confidence interval [CI], 1.3-3.4), non-Hispanic white (OR, 1.6; 95% CI, 1.0-2.5), preeclampsia (OR, 3.2; 95% CI, 2.0-4.9), and chorioamnionitis (OR, 2.8; 95% CI, 1.6-5.0) were consistent independent risk factors. Other risk factors based on the specified selection strategies were obesity, induction/augmentation of labor, twins, hydramnios, anemia, and arrest of descent. Amnioinfusion appeared to be protective against uterine atony (OR, 0.53; 95% CI, 0.29-0.98).

CONCLUSION: Independent risk factors for uterine atony requiring treatment include Hispanic and non-Hispanic white ethnicity, preeclampsia, and chorioamnionitis.

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