

Abstract

Predicting Urinary Incontinence among Postpartum Women: A Meta-Analysis

Budi Iman Santoso, Raymond Surya, Astrid Yunita, Gita Nurul Hidayah, Surahman Hakim

Department of Obstetrics and Gynecology, Dr. Cipto Mangunkusumo Hospital/ Faculty of Medicine, Universitas Indonesia

Objectives: Urinary incontinence (UI) is common during pregnancy-puerperium period with prevalence of 18.6%-75% during pregnancy and 6-31% during postpartum. This condition influences the decreased quality of life. This study aims to review from several published studies which risk factors impact to the incidence of UI.

Methods: The search was conducted on Pubmed®, Cochrane Library®, and Ovid® and resulted 57, 30, and 11 studies; respectively. We included cross-sectional, cohort or case control study related with this aim. The articles were screened using the criteria consisting of abstracts answering the clinical question, written in English language, full-text paper availability, and omitting all duplication papers. The risk of bias within the study was assessed using the Cochrane. Forrest plot was analysed using Review Manager 5.3.

Results: We found 12 studies related with our questions; however, 3 studies were excluded due to language matter. Of 9 studies, 2 studies were excluded later because they did not show the frequency of their baseline data. On maternal characteristics, age less than 35 years (OR 0.49; 95% CI 0.35-0.67), primiparity (OR 0.29; 95% CI 0.22-0.38), and BMI <25 kg/m² (OR 0.67; 95% CI 0.55-0.83) were considered as protective factors. Low level of education (OR 2.16; 95% CI 1.69-2.77) increased the risk of UI. Meanwhile, they showed heterogeneity among studies ($I^2 > 50\%$). On methods of delivery, the most prone to UI was emergency CS, followed by instrumental vaginal deliveries, spontaneous vaginal deliveries, and caesarean section. Episiotomy, epidural analgesia, and OASIS did not have association with UI ($p > 0.05$). On neonatal parameters, head circumference <35 cm has protective effect to UI (OR 0.82; 95% CI 0.73-0.93; $I^2 = 0\%$).

Conclusion: Methods of delivery and head circumference will affect to postpartum UI in according to p value ($p < 0.05$) and homogeneity among studies ($I^2 < 50\%$).