

URINARY INCONTINENCE 4 AND 12 YEARS AFTER FIRST DELIVERY: RISK FACTORS ASSOCIATED WITH PREVALENCE, INCIDENCE, REMISSION AND PERSISTENCE IN A COHORT OF 236 WOMEN

Hypothesis / aims of study

The natural history of female urinary incontinence (UI) is not well known. Most of the studies are retrospective or cross-sectional and do not allow us to determine the causality between these risk factors and UI. Our objective was to study risk factors associated with prevalence, incidence, remission and persistence of UI between 4 and 12 years after first delivery.

Study design, materials and methods

Study design: longitudinal study.

Materials and methods: seven hundred and seventy-four nulliparous women gave birth in two French maternity units in 1996 at a term of 37–41 weeks to a liveborn singleton in cephalic presentation. Two hundred and thirty-six of them returned a questionnaire about urinary symptoms 4 and 12 years after first delivery.

Main outcome measures: UI prevalence 12 years after first pregnancy, UI incidence, remission and prevalence between 4 and 12 years after first delivery.

Results

Factors associated with UI 12 years after first pregnancy were: BMI (OR = 1.21 [95%CI: 1.07-1.37]) and increased BMI (1.46 [1.21-1.77]), first child's weight (1.08 [1.001-1.170]) and UI during first pregnancy (4.01 [1.91-8.39]). Cesarean delivery was associated with a lower prevalence of UI 12 years after first delivery (0.13 [0.02-0.77]). Factors associated with UI incidence 4-12 years after delivery were age at first delivery (0.86 [0.75-0.99]) and increased BMI (1.31 [1.09-1.57]). A BMI increase, UI during first pregnancy and a large first child's weight diminish the chances of UI remission (0.34 [0.18-0.67], 0.16 [0.03-0.95], and 0.69 [0.54-0.88] respectively).

Interpretation of results

Mode of delivery is associated with UI prevalence 12 years after first delivery but not with de novo UI between 4 and 12 years after first delivery. It seems that mode of delivery acts as a punctual risk factor of UI. UI during first pregnancy could reveal an individual UI susceptibility. BMI appears to be a modifiable factor of UI.

Concluding message

Factors associated with the evolution of UI appear to be different.

Disclosures

Funding: We had no exterior funding for this work. **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Our work complied with French statutes and regulations, which authorise epidemiological surveys without advance approval of an ethics committee. Our survey involved no intervention and it thus excluded from the French statute on biomedical research (Loi Huriet-Serusclet, dated 20 december 1998). We complied with all French statutes concerning data about the subjects, confidentiality, and restrictions (e.g. no religious or racial data). **Helsinki:** Yes **Informed Consent:** Yes