

## **URINARY INCONTINENCE: IS IT MORE LIKELY AFTER DELIVERING TWINS OR SINGLETONS?**

### **Hypothesis / aims of study**

Debate on the obstetrical management of twin pregnancies has centered mostly on fetal outcomes, with scant attention devoted to maternal pelvic floor conditions that may adversely impact quality of life. We compared rates of stress urinary incontinence (SUI) among 'mothers of twins' and 'mothers of singletons' of equal parity, and assessed potential risk factors associated with incontinence in both groups. Our goal was to determine whether twin pregnancy and delivery pose unique physical burdens, and an increased risk of incontinence, relative to singleton births.

### **Study design, materials and methods**

Anonymous questionnaires detailing urinary incontinence symptoms were administered to 'Mothers of Twins' attending the National Organization of Mothers of Twins Clubs annual convention, and Mothers of Singletons attending the 2003 Twins Days Festival. The sample consisted of 329 women, each reporting a total parity of two: including 78 mothers of two singletons, and 251 mothers of twins with no additional singleton births. Explanatory variables were chosen to enter multivariable models based on  $p < 0.25$ , and included gestational order (single vs. multiple), delivery mode, age, weight of largest baby and hysterectomy. Chi2, t-tests and multiple logistic regression were performed using SAS.

### **Results**

Within the study sample ( $n=329$ ) the mean age (SD) was 38.5 (8.5) years; 35.0 for mothers of twins, versus 45.1 for mothers of singletons ( $p < 0.001$ ). Mothers of twins were 7.7 times more likely to have delivered by cesarean than mothers of singletons ( $p < 0.001$ ), and reported lower rates of stress incontinence (34.3 vs. 55.1%,  $p = 0.001$ ). Univariate analyses revealed the following to be associated with higher rates of SUI: singleton gestation, vaginal delivery mode, increasing age, and hysterectomy. According to the final regression model, SUI was associated negatively with 'cesarean only' birth mode (OR 0.54,  $p = 0.018$ ) and positively with age  $> 40$  (OR 2.5,  $p = 0.002$ ). Gestational 'order' (twins vs. two singletons) did not remain significantly predictive of SUI ( $p = 0.80$ ) after controlling for delivery mode and age.

### **Interpretation of results**

Sharply higher cesarean rates among mothers of twins were associated with the benefit of less incontinence afterwards, relative to mothers of singletons who more commonly delivered vaginally. Birth mode was the key determinant of post-reproductive urinary incontinence, for both twin and singleton pregnancies.

### **Concluding message**

Although twin gestation may introduce a unique physical burden on the maternal body, higher cesarean rates in this population appear to confer an overall lower risk of incontinence. As 'optimal' obstetrical strategies continue to undergo debate, implications on the maternal pelvic floor should be considered.