

## EVOLUTION OF URINARY INCONTINENCE IN WOMEN BETWEEN 4 AND 24 MONTHS POSTPARTUM IN THE COHORT EDEN

### Hypothesis / aims of study

The main objective of the study was to describe the evolution of urinary incontinence (UI) between 4 and 24 months postpartum, in terms of remission and incidence and analyze its determinants.

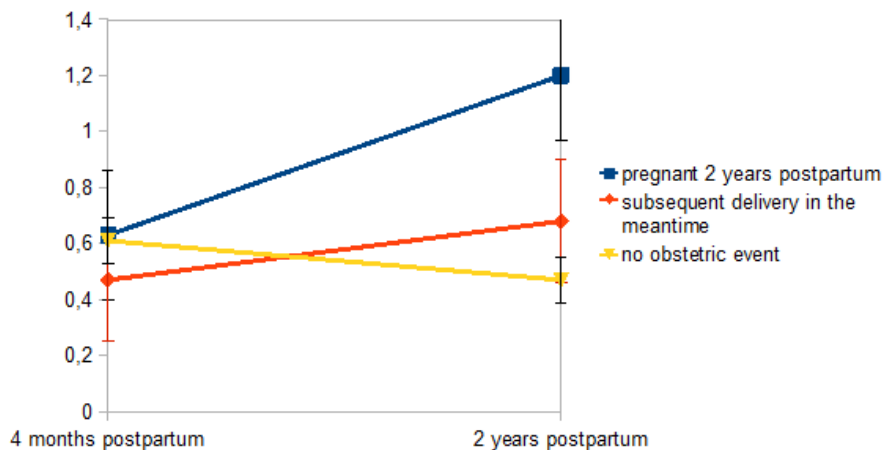
### Study design, materials and methods

The analysis was performed on data from the EDEN cohort at 4 and at 24 months postpartum. First we have analyzed the risk factors of urinary incontinence in 24 months of postpartum. Then two women's groups were distinguished by urinary continence at 4 months postpartum, the continentes (946 + 135) and incontinentes women (286). We examined the risk of UI incident in the continent women's group and the risk of remission of UI in the Group of incontinent women between 4 and 24 months of postpartum using logistic regression. We examined incontinent women at 24-months postpartum there was a difference between the 138 women who were already incontinent at 4 months and 135 who then became incontinent. We also analyzed by a linear regression on the whole population evolution of the severity of urinary incontinence measured by the score of Sandvik.

### Results

The prevalence of urinary incontinence in this cohort is 19.9 % at 24 months postpartum. Risk factors are aging (OR = 1.08; 95 % CI [1.04; 1.12]), obesity (2.25 [1.38; 4.66]), the parity (1.80 [1.17; 2.78]), a breastfeeding over 3 months (1.53 [1.08; 2.19]), ongoing pregnancy (3.37 [2.2; 5.4]) and natural delivery. Among women who had urinary leakage 4 months postpartum, the chances of remission to 24 months are 52.1 %. The only factor promoting remission of UI is cesarean during pregnancy index (0.43 [0.19; 0.96]) while a new pregnancy encourages persistence of leaks (OR = 3.87; 95% CI % [1.39; 10,77]). For continent women at 4 months postpartum, the risk of incident urinary incontinence to 24 months is 12.5%. Novo urinary incontinence risk factors are a new pregnancy and new birth in the meantime. Between 4 and 24 months postpartum, sandvik scored an average of 1.89 in current pregnancy and 1.33 for subsequent delivery in the meantime.

Figure 1. Evolution of the average Sandvik score between 4 months and 2 years postpartum with intercurrents obstetrical events



### Interpretation of results

Remission of the postnatal UI is more common for birth by caesarean section. First, we concluded that it is possible to present a postnatal UI after delivery by caesarean section, and secondly that this postnatal UI is usually transient in case of delivery by caesarean section. The effect of pregnancy on urinary continence may persist after delivery but it is more often reversible after a delivery by caesarean section compared with vaginal delivery. However it should be noted that 8.6% of women that related urinary leakage to 2 years postpartum did gave birth by caesarean section suggesting a proper role of pregnancy.

### Concluding message

Childbirth and pregnancy are at the center of the development of urinary leakage in women of childbearing age. In the targeted population, the natural history of urinary incontinence would be linked to the accumulation of pregnancies and deliveries with inter-individual variation of disease entry date on personal susceptibility. This theory of evolution was already supported by Francis in 1960 (1).

### References

- Francis WJ. The onset of stress incontinence. *J Obstet Gynaecol Br Emp* 1960;67:899-903

Disclosures

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