Hypothesis / aims of study
This study was undertaken to compare urinary symptoms and their impact on quality of life between a cohort of patients who sustained an obstetric anal sphincter laceration with patients without perineal laceration.

Study design, materials and methods
We studied a cohort of 13'036 women who gave birth vaginally to a singleton in cephalic presentation in pregnancies >37 weeks’ gestation between January 1996 and December 2006. From this cohort, we identified 196 women with anal sphincter laceration, defined as 3rd- and 4th-degree perineal tears and 588 matched controls. Questionnaires were mailed to each women. Urinary symptoms and their impact on quality of life were assessed respectively with the short forms of Urogenital Distress Inventory (UDI-6) and the Incontinence Impact Questionnaire (IIQ-7).

Results
Respectively 66 (33.7%) and 192 (32.7%) women with and without anal sphincter lacerations returned the questionnaires (p=0.8). Both groups were similar in terms of parity, age, race, body mass index, years of delivery, marital and social status (insurance, university studies, employment). Moreover, obstetrical characteristics (labor induction, epidural analgesia, operative vaginal and caesarean delivery, episiotomy, birth weight) were also similar. Stress (15 vs 16%) and urge (9%) incontinence, urine leakage (10 vs 8%), voiding difficulties (6%) and lower abdominal pain (10 vs 8%) did not differ between women with and without a previous anal sphincter laceration. However, frequent urination was more frequently reported by women with a previous anal sphincter laceration (33%) than controls (13%, p<0.001, OR 3.4 95%CI 1.7-6.5). The impact of urinary incontinence was similar between women with and without anal sphincter lacerations, except during physical activities at home (6% vs 1%, p<0.05, OR 5.7 95%CI 1.1-31.6). UDI-6 and IIQ-7 scores were similar between both groups. However, perineal physiotherapy was more often reported by women with a previous anal sphincter laceration (49%) than controls (28%, p<0.001, OR 2.5 95%CI 1.4-4.4).

Interpretation of results & Concluding message
Women who sustained an obstetric anal sphincter laceration do not have more urinary symptoms than matched controls, except for frequent urination. The impact of this symptom has no impact on quality of life. Difference in use of perineal physiotherapy between both groups may reflect post-partum urinary symptoms differences.