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URINARY INCONTINENCE DURING PREGNANCY AND AFTER THE FIRST LABOUR.

Hypothesis / aims of study

Urinary incontinence is a common and distressing condition which, whilst not life threatening, is known to cause considerable morbidity. Pregnancy and vaginal delivery are regarded as main risk factors in the development of urinary incontinence [1]. The aim of our study is to objectify the influence of pregnancy and labour on the incidence of urinary incontinence.

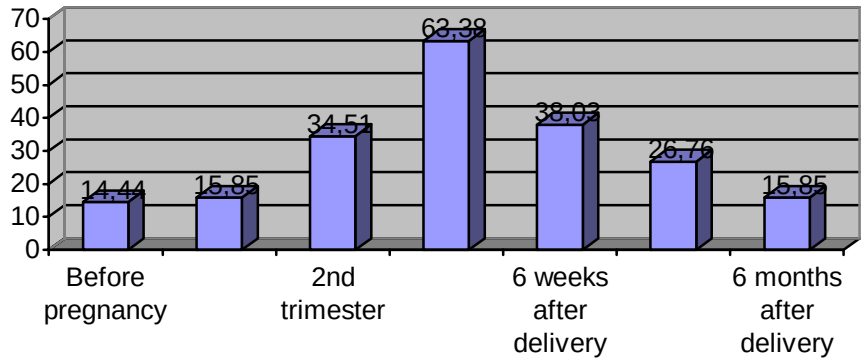
Study design, materials and methods

The study was approved by the local Ethics Committee and the informed consent was obtained. We received a grant for this study. All primiparous females who gave birth at our maternity ward from June 12, 2004 through February 28, 2005 were included into our study, i.e. 499 females were asked for cooperation. The obstetrician on duty filled in detailed forms about the course of labour. The data on occurrence of urinary incontinence before pregnancy, during its course and six months after the delivery was collected via two questionnaires. On purpose we adopted questions related to the urinary incontinence from the successfully used survey questionnaire [2]. Our study was designed as retrospective and due to this fact it was necessary to use a simple questionnaire. The first questionnaire was distributed on the day two or three after the delivery and the second one six months after it. We had these standard questionnaires in six language versions. The frequency of urine leakage was categorised as “never”, “sometimes”, “often” and “always”. For the testing of some hypothesises we also used the categorisation “continent” or “incontinent”. All answers “sometimes”, “often” and “always” were categorised as “incontinent” and answers “never” were categorised as “continent”. For the statistical analysis, the chi square test was used. The results were considered to be significant if $p<0,05$.

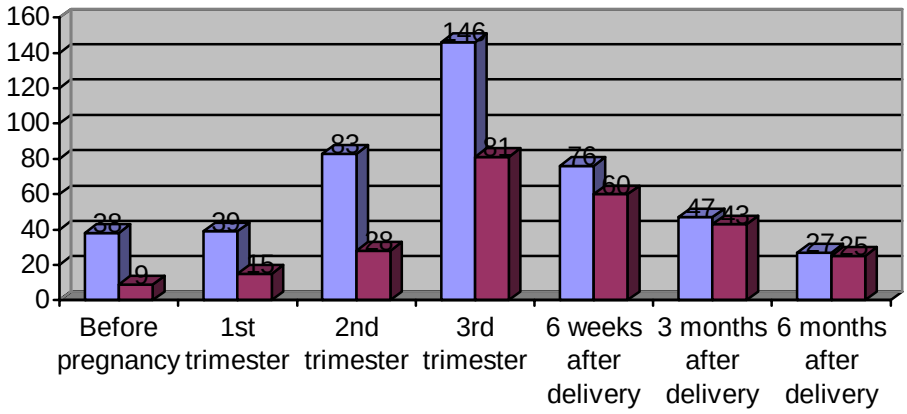
Results

The response rate for the first questionnaire was 74,5% (i.e. we collected 372 filled in questionnaires) and out of 372 responders 284 returned the second questionnaire as well (i.e. 76,3%). We found the statistically significant increase in the occurrence of urinary incontinence during pregnancy followed by the significant decrease immediately after the delivery (p=0,0001). The results are shown in Graph 1. There was also statistically significant accrual of both stress urinary incontinence and urge urinary incontinence during pregnancy (p=0,0001). The proportion of urge urinary incontinence increases in the course of pregnancy (Graph 2). Prevalence of urinary incontinence is neither in statistically significant relation to BMI before pregnancy (p=0,1207) nor to BMI before delivery (p=0,1380). It is also not in statistically significant relation to the weight gain during pregnancy (p=0,2147) and to the age of primiparas (p=0,5290). Only 19 females of 284 discussed the issue of urinary incontinence with a professional during pregnancy and 43 did during puerperium.

Graph 1: Prevalence of urinary incontinence in percents



Graph 2: Occurrence of stress and urge urinary incontinence in numbers of females



Interpretation of results

The incidence of urinary incontinence during pregnancy and puerperium in our set of primiparous females matches with results of other authors. Our baseline (pre-pregnancy) prevalence was about 14%. According to other published papers the prevalence of pre-pregnancy urinary incontinence in the group of primiparas is usually reported as 3-8%, i.e. our prevalence is higher than previously published results. This may be due to our categorising of answers – all females who filled in occasional leakage of urine i.e. “sometimes” were categorised as “positive answer” to this question. Also there can be a bias because of the retrospective manner of our questioning. The prevalence of urinary incontinence during the first trimester of pregnancy was almost the same as that reported for pre-pregnancy. The prevalence of urinary incontinence during the second trimester and during the third trimester of pregnancy was almost 35% and approximately 63%, respectively. These findings correspond to previously published papers although our results are on the upper bound of this file. This might have been influenced by the structure of our population. We had almost no black females in our file and this could have impact on our results because the prevalence of urinary incontinence in black females is usually lower compared to white females. The increase in urge urinary incontinence during pregnancy may be induced by mechanical factors. Urge urinary incontinence also seems to be less transient in the puerperium compared to stress urinary incontinence. In contrast to some other published papers we did not find age, obesity and weight gain during pregnancy as statistically significant risk factors for the development of urinary incontinence [3]. In concordance with some other authors, we found that females suffering from urinary incontinence usually do not seek help.

Concluding message

Our results document the importance of pregnancy as a risk period for the onset of urinary incontinence but in most cases the affection seems to be transitional (at least in the short term).

References:
[1] Am J Public Health 1999;89:209-212
[2] BJOG 2000;107:186-195
[3] BJOG 1999;106:842-850

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