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Authors: C.H. van der Vaart, J.G. van der Bom#, J.P.W.R Roovers, A.P.M. Heintz **Institution:** Dept Obstetrics and gynaecology, #Julius Center for patient oriented research

Title: URINARY INCONTINENCE BEFORE HYSTERECTOMY

Aims of the study:

To compare the prevalence and bothersomeness of symptoms of stress and/or urge urinary incontinence between women sceduled for hysterectomy and women who are not.

Methods:

The study sample consisted of two cohorts. The first sample consisted of a cross-sectional cohort of 1831 healthy women obtained from a random population sample. These women did not have had a hysterectomy. The second sample consisted of 414 women sceduled for hysterectomy for benign diseases. All women received a questionnaire that included the Urogenital Distress Inventory.(1) A woman was considered to have symptoms of stress incontinence if she replied positively to the question "do you experience urine leakage related to physical activity, coughing or sneezing" and to have urge incontinence if she replied positively to the question "do you experience urine leakage related to the feeling of urgency". If a woman replied positively to one of these questions she was asked how bothersome she considered the symptom to be. This bothersomeness was scored on a 4-point Likert scale. In analysis this bothersomeness was dichotomized into not bothersome (not at all, slightly) and bothersome (moderate, greatly).

Age and educationel level (primary only or secundary/higher) were corrected for in analysis. Logistic regression analysis was used to obtain crude and adjusted Odds ratio's (OR).

Results:

The prevalence of symptoms of stress incontinence (hysterectomy group 45.5%, control group 44.7%) and urge incontinence (hysterectomy group 21.1%, control group 20.5%) did not differ between groups. However, if urinary incontinence symptoms were present, women sceduled for hysterectomy reported to be far more bothered by it as compared to the control group. The adjusted (age and educational level) OR for women sceduled for hysterectomy for bothersome stress incontinence was 6.3 (4.5;9.0) as compared to the control group. For symptoms of bothersome urge incontinence the adjusted OR was 14.6 (8.3;25.7).

Conclusions:

Hysterectomy has been reported to relief symptoms of urinary incontinence in up to 75%.(2) If symptoms leading to hysterectomy, like an enlarged uterus or heavy mentrual bleeding, were also related to urinary incontinence one might expect to find a higher prevalence of urinary incontinence symptoms in women sceduled for hysterectomy. Our results show that this is not true. However, if urinary incontinence is present we could clearly demonstrate that women sceduled for hysterectomy are much more bothered by it. This implicates that, regarding urinary incontinence, women sceduled for hysterectomy differ from women who

are not. In order to accurately assess the consequences of hysterectomy on urinary incontinence these differences have to be accounted for in analysis. We hypothize that the relief of urinary incontinence symptoms after hysterectomy is mainly due to a different perception of it as a problem and not so much to a reduction in frequency or volume of loss. This hypothezis is currently under investigation at our institute.

¹ Schumaker SA, Wyman JF, Uebersax JS, McClish D, Fantl JA. Health related quality of life measures for women with urinary incontinence: The Urogenital Distress Inventory and the Incontinence Impact Questionnaire. *Quality Life Res* 1994; 3: 291-306.

² Kjerulff KH, Langenberg PW, Rhodes JC, Harvey LA, Guzinski GM, Stolley PD. Effectiveness of hysterectomy. *Obstet Gynecol* 2000; 95: 319-26.