Hysterectomy does not impair incontinence – A Swedish Quality register study

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Aims

Hysterectomy for benign indications is commonly said to increase risk for incontinence although the literature is contradictory. Media highlight more often on alarming reports than reassuring ones. Differences in study design and material make meta-analysis difficult, and even newly published Swedish data differ on this subject (1,2). The aim of this study was now to evaluate the influence of hysterectomy on incontinence using data from a national quality register on uterine surgery.

Design M&M

Data from the last three years in the Swedish Quality Register on Uterine Surgery characterized by pre- and 12 months´ postoperative questionnaire asking the patient to declare urinary leakage according to a conventional 5-graded scale (never, almost never, monthly, weekly and daily) were analysed for frequency of preoperative and *de novo* incontinence. This database consisted of 14.505 patients with uterine surgery. Patients with benignant patology undergoing hysterectomy (total uterus extirpation) comprised 75% of this material and were selected for further analysis on predisposing factors such as size and prolapse of uterus, extirpation route, concomitant other operation. Cases with missing data were excluded. Statistical calculations were done in SPSS 16.5 and Chi2 test was used for statistical comparison between groups. Significance levels are $p = 0.001$.

Results

Preoperative incontinence frequency in the material consisting of 9005 patients undergoing hysterectomy with benign patology was 29,5% and significantly reduced postoperatively to 23.6%. In patients with uterine size exceeding gestational week.13 or uterovaginal prolapse the significantly higher incontinence frequency before operation (33,0% and 39,0%, respective) was reduced to normal levels (23,4% and 25,4%, respective) after hysterectomy. When corrected for extreme size of uterus and presence of prolapse, no differences in pre- and postoperative incontinence could be linked to mode of extirpation, i.e. by vaginal, abdominal or laparoscopical route. Neither did concomitant adnex surgery influence continence status. In an extreme lowrisk group consisting of 700 patients without prolapse and with normal uterine size ($\leq$ 6 g.w.) and hysterectomy as the only procedure, the number of patients manifesting *de novo* incontinence (51) was almost exactly the same as the number of incontinent patients reporting *de novo* continence after operation (53).

Interpretation

When excluding patients with predisposing factors, primarily enlarged uterus and uterovaginal prolapse, the continence status before and after hysterectomy is the same since *de novo* incontinence is equalized by *de novo* continence. However, 9,5% of hysterectomized patients manifest de novo incontinence within a year after operation. The study design can not answer the still open question whether hysterectomy may be a predisposing factor for incontinence after some years.

Take home message

Hysterectomy *per se* has a neutral influence on incontinence in the short term.

References

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