

DEVELOPMENT OF URGENCY URINARY INCONTINENCE (UUI) AFTER VAGINAL HYSTERECTOMY

Hypothesis / aims of study

Several publications during the recent years reported an unexpected high rate of urgency urinary incontinence (UUI) after vaginal hysterectomy of between 28 and 50% (1, 2).

We assumed that this could have been prevented by fixation of the uterosacral ligaments (USL) to the vaginal stump during vaginal hysterectomy (3). We therefore analyzed the outcome of patients who were operated in our institution according to their UUI symptoms.

Study design, materials and methods

We identified all patients who were operated by a vaginal hysterectomy and fixation of the USL at the vaginal stump between 2004 and 2010.

We performed telephone interviews using a validated survey on urinary incontinence. The UUI symptoms were classified as moderate or severe applying the following criteria:

moderate: voiding frequency between 10 and 15 times per day, time interval between first urge and micturition between 3 and 10 minutes.

severe: voiding frequency more than 10 times per day, time interval between first urge and micturition less than 3 minutes.

Results

We obtained the answers of 76 patients who underwent vaginal hysterectomy with stump fixation. 36 (47%) of these patients stated that they are suffering from urgency urinary incontinence (UUI). We divided these patients in two groups: those who had UUI already before surgery and those who developed UUI after surgery.

In 14 patients (18%) UUI occurred within 3 years after the vaginal hysterectomy, while 21 patients (29%) already suffered from UUI before vaginal hysterectomy.

21 patients (28%) suffered preoperatively from moderate UUI, while only 1 patient had severe UUI. We found an increase of symptoms in patients with moderate and severe UUI after surgery. After vaginal hysterectomy 24 patients (32%) had a moderate UUI (increase of 4%). Beside the one patient with preoperative severe UUI another 11 patients (16%) developed a severe UUI after vaginal hysterectomy ($p < 0,001$). From the 14 patients (18%) who developed urgency urinary incontinence after vaginal hysterectomy 11 patients had moderate and 3 patients had severe UUI.

26 patients (34%) had a descended uterus (according to the diagnosis in the patients chart) while 50 patients (66%) stated not to have a descended uterus before surgery. While only 16% of the patients ($n=8$) had UUI without a descended uterus, the percentage of patients with descended uterus was 54% ($n=14$).

According to menopausal status 9 premenopausal women (25%) had UUI, 10 perimenopausal women (28%) and 17 postmenopausal women (47%) were suffering from UUI.

Interpretation of results

According to our study 47% of women with a vaginal hysterectomy with vaginal stump fixation had or developed UUI. The multivariate analysis showed that the descended uterus, the menopause status and the surgery (in premenopausal patients) had an effect on the development of UUI.

Concluding message

Patients with descended uterus have an increased rate of UUI. Vaginal hysterectomy increased the severity of UUI from moderate to severe. Postmenopausal patients have the highest risk to develop UUI.

References

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Disclosures

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