

# Summary for thesis **Surgery for anterior pelvic floor dysfunction – incidence and impact on sexual function**

## Background

Surgery for anterior pelvic floor dysfunction consists of surgery for stress urinary incontinence and different procedures for pelvic organ prolapse. Estimates to undergo at least one of these procedures during their lifetime range from 11-20%. There are social as well as individual aspects for such a commonly performed procedure. From a society point of view, estimated incidence rates for a Nordic country are lacking and potentially modifiable risk factors need to be more clearly identified. From the individual point of view, the aim when performing surgery for pelvic floor dysfunction is to improve quality of life. Sexual function is an important component of quality of life, including many women and men of advanced age. While the notion of more recent research is, that pelvic floor surgery improves female sexual function, information about factors predicting such improvement is limited. With regard to male sexual function after surgery for the female, there is a general lack of studies.

## Objective

This thesis is based on three papers with the following aims and one set of *supplementary results*:

- I. To produce incidence estimates for pelvic organ prolapse surgery in a Scandinavian cohort and to examine possible risk factors.

*Supplementary results*: Prevalence of urinary incontinence surgery in a Scandinavian cohort.

- II. To analyze factors predictive for changes in sexual function of women after surgery for anterior pelvic floor dysfunction.
- III. To examine if sexual function of male partners changed after surgery of anterior pelvic floor dysfunction of the woman.

## Study design and methods

The first paper as well as the supplementary results are based on cross-sectional data from The Health Survey in North Trøndelag (HUNT<sub>3</sub>). Information was collected from questionnaires and clinical examinations. Main outcome measures were self-reported POP surgery and age at surgery, other outcomes were possible risk factors for POP surgery. Of the total female population in the county, 23 025 women (49%) were included for analysis.

The second and third papers were based on findings from an observational follow up study at the St Olavs hospital, Norway. Information was collected separately for women and their partners from self-administered questionnaires containing a collection of validated instruments and exploratory questions. These were administered both before and one year after POP or SUI surgery. For women, standardized measurements of the pelvic floor were performed at both times.

For study two the main outcome measure was change in sexual function, measured with PISQ, a condition specific sexual function instrument.

For study three the main outcome measure was scores from a male sexual function instrument (BSFI) and the presence of erectile dysfunction.

## Results

- I. The estimated cumulative incidence of POP surgery by the age of 85 was between 13.6 and 15.6 in the county of North Trøndelag. Apart from age and parity of three or greater, conditions increasing intra - abdominal pressure like lifting at work, COPD, asthma and chronic constipation as well as other gynecological surgery were significant risk factors for POP surgery.

*Supplementary results:* The prevalence of surgery for urinary incontinence in North Trøndelag was ..... among 85 year old women.

- II. Sexual function among women improved after surgery for anterior pelvic floor dysfunction ( $p < 0.001$ , 95% CI equivalent to 4-7% improved baseline score). Improvement was predicted by good health or coital incontinence, while psychological distress or the goal to improve defecation predicted deterioration. Further factors differed for women undergoing POP or SUI surgery.
- III. One year after pelvic floor surgery, scores for sexual drive, erection and overall satisfaction from the BSFI were unchanged and the ejaculation score had mildly improved from a range of 4 to a range of 3.5 ( $p = 0.014$ ). The proportion of men with erectile dysfunction was unchanged.

None of the men's baseline factors or vaginal dimensions at baseline or follow up were associated with the improved ejaculation score; only a reduction in the proportion of men reporting their partners with dyspareunia was significantly correlated (Spearman's rho 0.42,  $p = 0.019$ ).