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EVALUATION OF THE INFLUENCE OF PROLAPSE AND PELVIC FLOOR RECONSTRUCTIVE SURGERY ON LOWER URINARY TRACT SYMPTOMS.

Hypothesis / aims of study

The objective of this study is evaluate the influence of prolapse and pelvic floor reconstructive surgery on lower urinary tract symptoms (LUTS). Therefore we tried to analyze

1. the changes of LUTS following prolapse surgery,
2. the influence of prolapse extent, compartment defect and surgical procedure on postoperative genuine stress incontinence (GSI),
3. the predictive value of diagnostic parameters for GSI

Study design, materials and methods

The study included 266 women (mean age 64.6 years, range 38 -86 years) with various forms of genital prolapse. Patients' history and clinical data were obtained. Concerning LUTS standard questions from the CATI questionnaire (1) were put by the examining physician. All women underwent gynaecological examination including pelvic organ prolapse quantification (POPQ), urodynamic investigation according to the recommendations of the International Continence Society (2). Moreover, a controlled provocation with 300 ml saline in the bladder was used as a clinical stress test (cough test) to assess urinary leakage. All women underwent vaginal prolapse surgery, including vaginal hysterectomy, anterior and posterior colporrhaphies and sacrospinous fixation of the vagina. Concomitant incontinence surgery was omitted even in patients with proven genuine stress incontinence (GSI). All patients were revaluated three months after prolapse surgery using the same questions from the CATI questionnaire. All statistical analyses were performed using SPSS (Version 14.0, SPSS Inc. Chicago, IL). Sign test, logistic regression analysis and Fisher's exact test were performed.

Results

Prolapse surgery was associated with a decrease of urgency, nocturia and frequency. After surgery, more patients reported decreasing (n=130) than rising (n=38) micturitions during the day ($p<0.001$) and the night (n=105 vs 22, $p<0.001$). 52 (78,8%) out of 66 women were cured from urgency symptoms after pelvic floor reconstructive surgery, 14 (21,1%) had persistent, 18 reported de novo urgency ($p<0.001$). 53 (54%) out of 98 patients with stress urinary incontinence, were cured. In the remaining 45 patients (46%) GSI persisted 3 months after surgery. 27 patients revealed de-novo GSI after pelvic floor reconstruction ($p=0.002$). In regard to GSI, the extent of prolapse, the type of compartment defect and the type of surgery had no influence on patient outcome. Pre-existing preoperative GSI and a positive cough test are associated with a higher risk of post operative GSI ($p>0.001$; odds ratio 4.726, 4.152), whereas the maximal urethral closure pressure was without any predictive value on post-op urinary incontinence. In any case only 55,5% of the patients (n=15) with de novo GSI had a positive cough test, therefore this is no diagnostic tool to identify patients with occult GSI.

Interpretation of results

Prolapse surgery improves lower urinary tract symptoms. Concerning urinary incontinence more than 50% of patients with both, genital prolapse and GSI benefit from prolapse surgery alone. It is hard to identify the patients with occult GSI. Therefore we suggest a two step management in this subset of patients

Concluding message

Incontinence surgery should be performed following pelvic floor reconstructive surgery as a separate intervention. The economic point of view should be taken into consideration.

References

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Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**it is a retrospective analysis**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**