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RAZ NEEDLE SUSPENSION OF THE BLADDER NECK FOR STRESS URINARY INCONTINENCE: MEDIUM-TERM AND LONG-TERM RESULTS

Hypothesis / aims of study

The aim of the study was to evaluate the subjective cure of stress urinary incontinence (SUI) after the Raz bladder needle suspension at medium-term and long-term follow-up, respectively 0.5-5 and 7-12 years after surgery. Secondary outcome measures were improvement of SUI, complications, surgery for recurrent SUI, quality of life and patient satisfaction.

Study design, materials and methods

An observational cohort study of 114 consecutive female patients with genuine or masked SUI who underwent Raz needle suspension of the bladder neck between 1996 and 2000. Preoperative evaluation included clinical evaluation, a cough stress test and urodynamic analysis. Detrusor overactivity was a contraindication for surgery. The surgical procedure was performed according to Raz in a teaching hospital. In the paraurethral and subepithelial fascia polypropylene sutures were placed helically. They were passed through retropubically and tied over the rectus fascia. Follow-up evaluation consisted of the Bristol Female Lower Urinary Tract Symptoms (BFLUTS[1]) questionnaire at two time intervals, in 2001 and 2007. In this study, only questions related to urinary incontinence and quality of life are reported. Cure of SUI was defined as no leakage at all with physical activity, coughing or sneezing. Questions concerning patient satisfaction were added to the questionnaire. Additionally, medical records were searched for postoperative complications.

Results

At medium-term and long-term follow-up, respectively 103 (90%) and 85 (75%) patients were available for evaluation. Mean follow-up was respectively 2.5 and 9.3 years. The subjective continence rate was 32% at 2.5 years and 26% at 9.3 years. Improvement but no cure of SUI was reported in respectively 49% and 42%. Temporarily bladder drainage with a urinary catheter at or shortly after discharge because of transient urinary retention occurred in 22% of patients. Postoperative complications requiring surgical correction like suture removal because of pain or urinary retention and correction of an urethrovaginal fistula, occurred in 9% of patients during the first follow-up period. Complications did not occur at long-term follow-up. However, surgery for recurrent SUI was performed in 5% of patients after medium- and 15% after long-term follow-up. Overall, interference of urinary problems with quality of life occurred “never” or “only occasionally” in 75% after medium- and in 65% after long-term follow-up. Persistent SUI as such was regarded “not a problem” or “only a small problem” in respectively 72% and 56% of patients. At the first follow-up, 81% of patients would choose the same operation under similar circumstances and 62% at the second follow-up. Respectively 77% and 73% of patients would recommend the operation to someone else.

Interpretation of results

To reduce morbidity of open retropubic procedures, vaginal suspensions and subsequent modifications like the Raz needle suspension were introduced 3 decades ago. They became widely adopted, often without evidence of long-term effectiveness. Long-term evaluation of these operations is important because cure rates of SUI surgery generally decrease over time. Raz described a successful outcome of 90% after a follow-up of 15 months[2]. Other studies on long-term results after Raz suspension are scarce or contain several limitations. Although needle suspensions are supplanted by minimal invasive midurethral synthetic tapes, long-term evaluation of effectiveness remains important for correct interpretation of the results of contemporary minimal invasive techniques.

Concluding message

In this series of patients, the long-term subjective cure rate 7-12 years after Raz needle suspension is modest. The continence rate was 32% at 2.5 years and 26% at 9.3 years. A significant percentage of patients were reoperated because of recurrent SUI (15%) or postoperative complications (9%). Despite modest results, the majority of patients did not report severe interference of SUI in QOL or dissatisfaction with the procedure after both medium-term and long-term follow-up.

References

1. Br J Urol (1996) 77; 805-812
2. J Urol (1992) 148; 845-850

Specify source of funding or grant	**NONE**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Ethics Committee of the Leiden University Medical Centre**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**