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TREATMENT OUTCOMES AND CHANGES OF STORAGE SYMPTOMS IN FEMALE OLDER THAN 70 YEARS OLD WITH STRESS URINARY INCONTINENCE AFTER MIDURETHRAL SLING

Hypothesis / aims of study

The function of the female pelvic floor can be changed with aging [1]; therefore, older female may show various types of lower urinary tract symptoms. Stress urinary incontinence (SUI) is one of the most common problems in female, and midurethral sling has been considered as effective and safe treatment method in these patients. Moreover it has been well known that underlying storage symptoms can be improved after midurethral sling [2]. However, the outcome of midurethral sling can be influenced by detrusor and urethral physical alterations in patients with advancing age. The aim of this study was to investigate the influence of age on outcome and changes of storage symptoms after midurethral sling in patients older than 70 years old with SUI.

Study design, materials and methods

Sixty women older than 70 years old underwent midurethral sling (outside-in transobturator technique) were reviewed. Women younger than 60 years old underwent midurethral sling were chosen to compare with older women during the same period. The patients with a follow-up of at least 12 months were included, and patients who had neurologic diseases, previous radical pelvic surgeries, and grade II or higher cystocele were excluded from this study. According to the age, the patients were divided into two groups: Group I (n=60, younger than 60 years) and Group II (n=60, older than 70 years). The preoperative evaluation included a careful history taking, physical examination, 3-day consecutive voiding diary and an urodynamic study. The postoperative evaluation included a continence state and the inquiry of storage symptoms. Success was defined as the absence of any episodes of involuntary urine leakage during the stressful activities and improvement was defined as a significant reduction of urine leakage.

Results

The mean patient ages of Group I and II were 48.9 years (range, 30-59) and 73.8 years (range, 70-85). The storage symptom is more prevalent in Group II. The rates of preoperative frequency, urgency and urge incontinence were 80% (48/60), 25% (15/60) and 11.7% (7/60) in Group I, and 76.7% (46/60), 66.7% (40/60) and 40% (24/60) in Group II, respectively. The mean Valsalva leak point pressure (VLPP) was significantly different between Group I (81.4±25.9 cmH_2O) and Group II (65.2±25.9 cmH_2O) ($p<0.05$). The mean follow-up periods of Group I and II were 19.2 and 20.7 months. Postoperatively, the rate of success, improvement and failure were 88.3% (53/60), 8.3% (5/60) and 3.3% (2/60) in Group I, and 75% (45/60), 15% (9/60) and 10% (6/60) in Group II, respectively. The success rate of Group II was lower than that of Group I, but there was no significant difference. The rates of postoperative frequency, urgency and urge incontinence were 23.3% (14/60), 11.7% (7/60) and 6.7% (4/60) in Group I, and 13.3% (8/60), 21.7% (13/60) and 13.3% (8/60) in Group II, respectively. The storage symptoms improved much more in Group II than Group I. The rates of intra- and post-operative complications were similar in both groups.

Interpretation of results

The VLPP was lower in the women older than 70 years compared to the younger ones. From these results, we can presume that urethral cause such as intrinsic sphincter deficiency may have a major role to lead SUI in old female. However, the success rate of midurethral sling in old female was similar with the result of younger female in spite of relatively lower VLPP. The storage symptoms were highly prevalent preoperatively, but improved significantly in the old female patients after midurethral sling.

Concluding message

The results of midurethral sling in female older than 70 years with SUI showed relatively high success rate and improvement of storage symptoms. Therefore, midurethral sling seems to be effective treatment method in the old female patients with SUI.

References

1. Scand J Urol Nephrol Suppl 1994;157:27-30
2. J Urol 2008;179:214-219

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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	**This study was performed retrospectively with medical records**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**