319

Sone A, Kimura T, Shuto K, Shirotani K, Joh Y, Fujii T, Morioka M, Tanaka H
Department of Urology, Kawasaki Medical School

CHANGES OF URINARY FUNCTION FOLLOWING RADICAL PROSTATECTOMY - COMPARISON BETWEEN UNILATERAL RESECTION AND BILATERAL RESECTION OF NEURO-VASCULAR BUNDLE.

Aims of Study

Urinary disorders,primarily incontinence, were investigated in prostatectomy patients with unilateral resection as well as bilateral resection of the neuro-vascular bundle(NVB). Subjective symptoms and urodynamic parameters of these two groups were compared 1 month and 1 year postsurgery.

Methods

Out of 99 patients who received radical prostatectomy from January 1988 to August 2000 in our hospital, 14 patients with unilateral resection and 15 patients with bilateral resection of the NVB, aged 57 to 78(median 70), were enrolled for the observation of urinary function before surgery, 1 month and 1 year after surgery. Subjective symptoms (extent of incontinence, Lower Urinary Tract Disease Symptom Score, QOL index) and urodynamic parameters(CMG pattern, Blaader capacity,Pdet, Bladder compliance, ALPP, MUCP) were examined. Table 1 shows the incontinence grouping.

Results

Post prostatectomy incontinence was of high degree 1 M after surgery, but improved to nearly 80% of the level before surgery after 1 year. QOL index deteriorated temporarily after 1 M, but recovered to the level before surgery. Bladder capacity reduced to approximately 30% of that before surgery, but recovered to the same capacity as before. Bladder compliance dropped down to approximately 15ml/cmH2O after 1 M, but recovered to approximately 50% of that before. Detrusor pressure dropped down to approximately 20cmH2O and maintained that level up to 1 Y. This was not because of detrusor malfunction but due to the release of urinary tract obstruction. ALPP showed approximately 50cmH2O after 1 M and rose to an average of 85cmH2O after 1 Y. MUCP dropped down to 30cmH2O and maintained that level up to 1 Y. Overactive bladder of high rate was seen on CMG pattern at both 1 M and 1 Y postsurgery. There was no difference in CMG pattern between the unilateral and bilateral resection groups.

Conclusions

Post radical prostatectomy incontinence is seriously caused by detrusor malfunction(reduction of bladder compliance or detrusor pressure) as well as urinary sphincter malfunction. In this study, we demonstrated that detrusor function of the patients mostly recovered after 1 year and patients without ALPP improvement tended to have incontinence. There was no difference in these aspects between the unilateral and bilateral resection groups of the NVB. Furthermore, there was no difference between these groups in either the rate or period of appearance of the overactive bladder. Therefore, it is concluded that the preservation of NVB is involved in the recovery of ED, but not in the recovery of incontinence.