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THE EFFECTS OF TYPE 5 PHOSPHODIESTERASE INHIBITORS ON THE RECOVERY OF URINARY FUNCTION AFTER RADICAL PROSTATECTOMY

Hypothesis / aims of study

Urinary incontinence and erectile dysfunction are major complications after radical prostatectomy. The efficacies of type 5 phosphodiesterase inhibitors (PDE5i) have recently been revealed for sexual rehabilitation in patients with postoperative erectile dysfunction. The aim of this study was to evaluate the effects of PDE5i for the recovery of the urinary function after radical prostatectomy.

Study design, materials and methods

Out of 240 patients who underwent radical retropubic prostatectomy (RRP) in our institution, 99 patients who underwent bilateral nerve-sparing procedures during RRP were recruited. Of the 99 patients, 63 took postoperative PDE5i (PDE5i group) and 37 did not (non-PDE5i group). The recovery of urinary function was assessed and compared between the PDE5i and non-PDE5i groups. Urinary function was evaluated using the urinary function domain of the University of California Los Angeles Prostate Cancer Index (UCLA-PCI) preoperatively and at 1, 3, 6, 12, 18, 24, and 36 months after RRP. Moreover, to estimate the effect of the early use of PDE5i, the PDE5i group was divided into two subgroups, the early (within 3 months after RRP) and late use of PDE5i.

Results

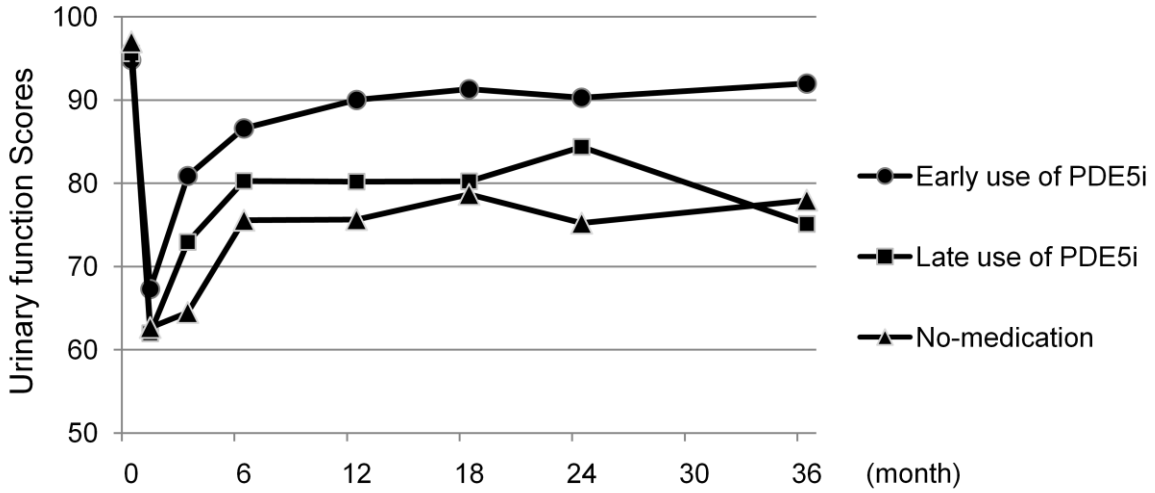
The scores of the urinary functions initially declined to the lowest score at 1 month after RPP, and then, gradually improved in both the PDE5i and non-PDE5i groups. However, the improvement of the urinary function was significantly earlier and greater in the PDE5i group compared with the non-PDE5i group. The scores in the early PDE5i subgroup showed better recovery than the late use subgroup.

Interpretation of results

PDE5i promotes the recovery of urinary function after RRP. Early use of PDE5i resulted in better recovery of urinary function compared with the late PDE5i.

Concluding message

Our data indicates that PDE5i can improve urinary function after RRP. Early administration of PDE5i is recommended to improve urinary function recovery after RRP.



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Was this study approved by an ethics committee?	**Yes**
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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**