Treatment effects of phosphodiesterase-5 inhibitors may improve with time following nerve-sparing radical prostatectomy.

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OBJECTIVE: Erectile dysfunction (ED) is common following radical prostatectomies, and phosphodiesterase type 5 inhibitors (PDE5 inhibitors) are generally considered the first choice of treatment. The purpose of this study was to analyze the long-term efficacy of PDE5 inhibitors in a group of men who did not achieve sufficient erectile function from the medication in the short term following surgery.

MATERIALS AND METHODS: Prospectively collected data from patients with postprostatectomy ED, initial failure of PDE5-inhibitor treatment at 3 and/or 6 months and at least 12 months' follow-up were included. All patients had completed the International Index of Erectile Function short-form questionnaires (IIEF-5) before surgery and at follow-up visits. Response to PDE5 inhibitors was defined as an IIEF-5 score of at least 17.

RESULTS: The inclusion criteria were fulfilled by 349 patients. At 12 months, 228 patients were still using PDE5 inhibitors. Of these patients, 92 had undergone bilateral and 120 had undergone unilateral nerve-sparing radical prostatectomies. Overall, 42 PDE5-inhibitor users (18%) were responders at 12 months. Bilateral nerve sparing was the only independent predictor of a late response (odds ratio = 2.9). Thus, 28% of bilaterally nerve-spared patients were responders, while corresponding numbers for unilaterally nerve-spared patients and non-nerve-spared patients were 13% and 6%, respectively.

CONCLUSIONS: Patients who have undergone bilateral nerve-sparing radical prostatectomy should be rechallenged periodically with PDE5 inhibitors even if the treatment is unsuccessful initially. Unilaterally nerve-spared patients and especially non-nerve-spared patients are likely to need more aggressive treatment.

KEYWORDS: Erectile dysfunction; PDE5 inhibitors; prostate cancer; radical prostatectomy; sexual dysfunction

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