Erectile dysfunction after radical prostatectomy: pathophysiology, evaluation and treatment.


Abstract
Radical prostatectomy (RP) is the gold standard treatment for localized prostate cancer; yet erectile dysfunction (ED) in selected series is still reported as high as 80% after this surgery. Patient selection and surgical technique (i.e., preservation of neurovascular bundles) are the major determinants of postoperative ED. Pharmacological treatment of postoperative ED, using either oral or local approaches, is effective and safe. Thus, most men need adjuvant treatments to be sexually active following RP. These include intracorporeal injections of vasoactive drugs, vacuum constriction devices and transurethral dilators, all of which have reported response rates of 50 to 70%. Unfortunately, long-term compliance is sub-optimal, with a discontinuation rate of nearly 50% at 1 year. These non-oral options should be offered on an individual basis to patients who have failed oral therapy (IPDE5) since efficacy and compliance vary. Also, these options should be considered in the early postoperative period to enhance sexual activity and penile oxygenation, which may prevent corporeal fibrosis. Early penile rehabilitation with intracavernosal injections is the gold standard for patients over 60 years old and those who underwent non-sparing surgery. In younger patients and/or when preservation of nerve tissue was feasible, oral IPDE5 may be effective in promoting an earlier return of erectile function. Recent studies have shown that pharmacological prophylaxis early after RP can significantly improve the rate of erectile function recovery after surgery. Use of on-demand treatments for treatment of ED in patients subjected to RP has been shown to be highly effective, especially in cases of properly selected young patients treated with a bilateral nerve-sparing approach by experienced urologists.

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