Platinum Priority – Editorial

Referring to the articles published on pp. 261–272 and on pp. 273–286 of this issue

Post–Radical Prostatectomy Erectile Function:
The Five Ws and the H

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I keep six honest serving-men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.
—Rudyard Kipling, Just So Stories

1. Who is considered for nerve-sparing radical prostatectomy?

The issue of nerve-sparing radical prostatectomy (NSRP) remains controversial, even 30 yr after Walsh and Donker published their first paper about it [1]. Candidates for this procedure are patients with oncologic indications and a desire for normal postoperative sexual function [2]. It should be noted that almost a third of patients report that preservation of erectile function (EF) is not important to them [3]; however, very often these patients desire sexual activity a few months after successful recovery from surgery. In this group of patients, presurgery potency status should be carefully evaluated; if the patient has moderate or severe erectile dysfunction (ED), the man should be informed that he is more likely to lose his limited erectile capacity postoperatively. Because the prevalence of both prostate cancer and ED and ED-associated comorbidities (cardiovascular disease, diabetes mellitus) increase with age, a small proportion of relatively younger patients are the best candidates for NSRP. Thousands of men worldwide have undergone radical prostatectomy; most of them achieve normal urinary and bowel control but not normal erectile function. In a recent article, Salonia et al. stated, “The patient has the inalienable right to be given realistic expectations regarding his postoperative erectile and sexual function. This will help anyone (ie, physicians and patients) understand how to start with the prevention of damage and his subsequent recovery, reducing possible false expectations and subsequent frustrations” [2].

2. Why is there such a discrepancy in postprostatectomy erectile dysfunction rates?

Surgery for prostate cancer has seen major improvements during the last decade. Open prostatectomy was initially challenged by laparoscopic and today by robot-assisted prostatectomy. Moreover, several modifications have been described for a better clinical outcome. Randomized prospective head-to-head comparative trials, with the primary end point erectile function with different types of procedure (open vs laparoscopic vs robotic) or technical modifications (interfascial or intrafascial approach) are lacking. Because it is extremely difficult to standardize procedures, large multicenter clinical trials of surgical procedures are challenging to undertake [4].

Choices about the exact type of procedure are individual to the surgeon and to each patient, and every surgeon makes individual choices about the exact steps of each operation (extent of neurovascular band preservation), depending mostly on his or her personal experience (volume is important), the technology resources of the institution (type of procedure), and the cost (insurance). NSRP should still be considered innovative surgery because it remains a challenge...
for urologists. Innovative surgery always raises multiple challenges [5]: (1) potential harm to patients (eg, the oncologic criteria for selecting the appropriate patients for the appropriate technique); (2) compromised informed consent (urologists should deliver honest information to their patients prior to surgery based on their own series and technical skills rather than on data coming from centers of excellence); (3) unfair allocation of health care services (physicians need to refer the patient to appropriate services when they cannot offer the selected treatment); and (4) conflicts of interest (information offered to patients regarding available treatment options should come exclusively from the best articles of the most respected journals rather than industry-supported Internet sources or biased-selected scientific articles with low levels of evidence).

3. How do we define erectile function?

Salonia et al. identified 22 different definitions of favorable EF outcome [2]. It is not surprising that the best results come from papers that either did not report how they define adequate erectile capacity (more than a third of the studies) or did not consider potent all responders to phosphodiesterase type 5 inhibitors [2]. For both problems, the responsibility belongs equally to the researchers, as well as to the journals that accepted the papers for publication. I strongly endorse the statement by Salonia et al. that clinicians may “bypass the errors of the scientific literature, eventually providing patients with more realistic expectations” [2]. Discussion is also ongoing about the best method to report erectile function; however, the International Index of Erectile Function (IIEF) is clearly the main tool to assess and compare results because it is the most extensively studied end-point measure in the literature [6].

4. Where should we use rehabilitation protocols?

Because strong evidence in the literature clearly shows that lack of nocturnal and spontaneous erections lead to ischemia of the cavernosal tissue and fibrosis, a rehabilitation strategy is mandatory as early as possible [7]. It seems that current best practice supports the use of vasoactive agents right after the removal of the catheter. Such a strategy may only be reserved for patients who had uncomplicated NSRP, however, whose erectile function preoperatively was adequate for sexual intercourse (with or without PDE5-I use) [8]. Attention should be paid to the observation that rehabilitation protocols are beneficial even in men with spontaneous erections postoperatively because further improvement in such patients was reported [8]. Patients with certain postoperative erectile capacity may even benefit more from such protocols.

5. What rehabilitation protocol should we consider?

Rehabilitation may definitely include a PDE5-I. To select the right PDE5-I, physicians should follow the typical process used for every patient with ED: We have to offer all available options on the market and allow the patient to choose the best for him, the one with no or minimal side effects and the best efficacy [9]. Data show no definitive conclusion on the superiority of daily use of PDE5-Is compared with on-demand use [8]. However, in clinical trials, patients intended to use PDE5-I quite often (two to three times per week); such PDE5-I use is not common in everyday clinical practice, especially the initial postoperative period. Therefore, it is clear that a man who uses on-demand treatment once or twice per month should not be considered a follower of a rehabilitation protocol.

A difficult question to answer is the treatment protocol of choice for those nonresponders to PDE5-Is. In such cases, intracavernosal injection (ICI) therapy two to three times per week seems to be the best protocol. The best compound for ICI is again the one with minimal side effects (especially pain) and good results. A very important issue in every rehabilitation protocol is its efficacy. Because cost is a significant obstacle to the rehabilitation program [10], patients who respond poorly to the protocol, unable to have successful intercourse, are candidates for early dropout. We should not ignore, especially in such patients, the important role of psychosexual counseling because everyday clinical practice has shown that some of them will respond to treatment after only a few sessions with a certified sex therapist [8].

6. When should we stop rehabilitation?

It remains uncertain how long such a protocol has to be followed; for responders to a PDE5-I, the problem practically does not exist because these patients are able to have sexual life. Data have shown that recovery of spontaneous or assisted functional erection via PDE5-Is during the initial 3-mo postoperative period is an excellent prognostic indicator [8].

For the nonresponders, the question is raised at every visit to the doctor’s office whether or not erections will come back. Do we expect that patients without any erectile capacity at 12 mo—not even tumescence—will be able to restore their erectile function in 2 or 4 yr? Most of us will respond negatively, despite the lack of comprehensive data from the literature. To answer this question, a well-designed study with IIEF data every 3 mo and long follow-up is needed because improvement has been noticed even 4 yr after surgery [8]. At the present time, informing the patients about the current evidence, as well as the gaps in our knowledge, is the best clinical practice. At the end of the day, patients’ choice will play the most important role in the decision to move to the next step, the implantation of a penile prosthesis.

Conflicts of interest: The author has nothing to disclose.

References


