Quality of Life After Radical Prostatectomy: Can We Give a “Lifetime Guarantee” to Our Patients?

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The preservation of urinary and sexual functions are fundamental decision criteria for prostate cancer (PCa) patients searching for the best treatment option. Numerous surgical modifications and postsurgical rehabilitation strategies have been introduced during the last 30 yr to maximize the quality of life of men after radical prostatectomy. Because of the increasing use of prostate-specific antigen testing, today most tumors are diagnosed in early stages, permitting less radical surgical techniques with preservation of the neurovascular and urinary sphincter structures. The literature data show a marked improvement in postsurgical functional outcome within the last 10–20 yr.

All reported surgical modifications either aim to preserve the anatomic integrity of the distal or proximal urethral sphincter complex or to preserve the neurovascular structures as much as possible. For example, the posterior reconstruction of the rhabdosphincter (Rocco stitch), as well as our full functional-length urethral sphincter preservation approach, has shown significant improvements in early continence recovery [1,2]. A significant increase in nervesparing frequency can be achieved by routine intraoperative frozen section–navigated nerve sparing (NeuroSAFE) [3].

Whereas older studies suggesting surgical improvements often demonstrated a substantial net increase in potency and continence, recent surgical modifications mostly have resulted in improved early recovery and not in improved long-term results (eg, 1-yr results). This difference is obviously explained by the fact that most studies have been published from very experienced surgeons and centers with already excellent long-term functional results, giving little scope for statistically significant improvements. In our experience, the coping process and quality of life markedly correlate with early recovery of urinary and sexual functions, justifying every effort to improve early recovery of these important quality-of-life factors.

The accurate counseling of men regarding recovery of urinary and sexual function is of paramount importance for establishing realistic expectations, which in turn contribute to patient satisfaction. Put succinctly, a self-confident, high-volume surgeon today can credibly promise eligible patients that they will regain their continence and potency after a more or less short recovery phase. But for how long? Is there an increased lifetime risk for late incontinence or impotence after radical prostatectomy, even after initial full recovery?

In this issue of European Urology, two studies from the New York University School of Medicine group focus on the 10-yr urinary and sexual function results of a consecutive radical prostatectomy series by a single high-volume surgeon [4,5]. More than 1700 men were continuously followed before prostatectomy and at 3, 6, 12, 24, 96, and 120 mo after surgery by validated questionnaires. The strength of the studies is their stringent real-world study design that did not exclude any patient because of missing variables or factors that potentially risk the surgeon’s showing up in a disgraceful light.

The take-home message is that, as expected, urinary function decreases immediately after surgery, followed by a variable recovery phase within the first 2 yr. It is interesting to note that after 2 yr, another slight but statistically significant age-dependent decrease of continence can be observed, having its highest drop between 8 yr and 10 yr [4]. Potency results for the identical patients showed the same initial drop, but opposite to continence, recovery of erectile function can extend well beyond 2 yr, again significantly associated with patient age [6].
These two studies are currently the best data resources for assessing the dynamic long-term impact of radical prostatectomy on functional outcomes. The authors thoroughly discussed the inevitable limitations of such a long-term analysis and the different definitions of continence and potency, and they regretted the lack of an appropriate control group such as a matched cohort of non-PCa patients. We believe that although this idea will instinctively cross some urologists’ minds, it is not expedient in the context of the data presented by Prabhu et al. [4] and Sivarajan et al. [5]. To assess whether the slight decrease of urinary continence with time represents a natural age effect, existing data from several population studies can be used. These studies unanimously report a clear association of urinary dysfunction and potency with patient age [7–10]. The identification of a suitable control cohort for the study would require adjustment for characteristics such as comorbidities, lifestyle factors, and marital status. Such a population would be difficult to identify, but even if one could be found, it still would not be the control group that patients with a newly diagnosed PCa are asking for. Cancer patients do not have the option to choose between cancer treatment and being healthy. They are forced to weigh the pros and cons of different treatment options. In consequence, meaningful controls would be matched patients with a clinically localized PCa, who have been treated with the established radiotherapy modalities, radical prostatectomy, or active surveillance.

Long-term quality-of-life data for modern radiotherapy and active surveillance patients are too sparse or too old to enable reliable matched cohort comparisons. For example, Resnick et al. recently compared 1655 patients treated with prostatectomy or conventional radiotherapy between 1994 and 1995 with respect to long-term function and concluded that better functional outcomes were associated with radiotherapy at 2 and 5 yr after therapy, but these improvements disappeared at 15 yr [6]. Although these data are of historical interest, it is obvious that they have little relevance for current patients, given the dramatic technical developments in the radio-oncologic and surgical treatment of PCa since 1995.

In summary, the data on long-term urinary and sexual function dynamics from Prabhu et al. [4] and Sivarajan et al. [5] in this issue of European Urology provide a highly valuable data resource for addressing the initial question of whether we can give lifelong guarantees for our radical prostatectomies. The answer is yes, but only for patients who recovered within the first 2 yr after surgery. In individual preoperative and postoperative patient counseling, individual risk factors for postoperative urinary and/or sexual dysfunctions and late toxicities have to be identified.

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References