



A trend to minimize the radicality of surgery

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Various kinds of malignancies have become the leading cause of death in Taiwan.¹ Therefore, efforts have been made to minimize cancer-related morbidity and mortality.² Similar to all other chronic or acute illnesses, many strategies, such as risk identification in the general population,³ healthy life style, and behavior,^{4,5} a cost-effective screening method,⁶ and an early detection^{7,8} for the slowing down development and/or reducing disease-related mobility and mortality have been approved effectively, although many struggles still impede to reach the satisfactory results. All need further continuous development of advanced technology and more effective therapeutic strategies to provide a better chance to prolong the life span of diseased people and minimize therapy-related adverse events (AEs).^{9,10} It is always stated in the dilemma between saving lives and losing valuable organs and/or destruction or impairment of normal function, presenting a heavy burden to patients themselves, their families, and society, and also forming the biggest challenge for both physicians and patients. However, more and more patients have re-considered their needs when they faced the diseases. Their wish is not only to focus on curing diseases uneventfully but also attempting to preserve the organ or at least maintain the function of a targeted or damaged organ eventually.

Regenerative medicine, organ transplantation, three-dimensional printing of custom-made prosthetic reconstructions, etc. have been reported to effectively assist in maintaining the basic or alternative function of damaged organs and/or tissue.¹¹ However, if an accurate and precise evaluation and the following appropriate therapeutic plan can be guided before the initiation of treatment, particularly for those who are candidates suitable for surgical intervention, a minimally traumatic and/or sparing organ strategy as well as an establishment of the physiological and morphological function of damaged tissues and/or organs should be conducted to minimize the risk of overtreatment-related subsequent AEs and severe sequelae.¹¹ Sometimes, no need for extra cost from new technology can be achieved,¹¹ contributing to the refreshing or reminding of our thoughts while

we do more but may lose more.”¹² The recent publication in the current issue of the *Journal of the Chinese Medical Association* entitled “Effects of nerve-sparing procedures on surgical margins after robot-assisted radical prostatectomy” attempted to discuss the highly debated issue,¹³ since these cancer patients not only wish to be managed successfully (cure) to save their lives but also look eagerly forward to having preservation of function of the targeted organs and/or surrounding organs after cancer treatment.¹¹

The authors retrospectively enrolled 417 prostate cancer (PC) patients undergoing robot-assisted radical prostatectomy (RARP) either with nerve sparing (NS) or without techniques to investigate their association with the presence of positive surgical margins (PSMs).¹³ The authors found that PSM rates were not statistically significantly different among unilateral, bilateral, and non-NS procedures, regardless of which pathological tumor size (pathological stage, pT) was classified, but in terms of specific site evaluation, such as posterolateral PSM rates, the authors found that the partial NS RARP had a statistically significantly higher risk of an increased PSM rate compared to those in either complete NS RARP (odd ratio [OR] 2.187) or non-NS RARP (OR 2.237).¹³ Therefore, the authors concluded that partial NS RARP had a potential risk of increasing the PSM rate than complete and non-NS RARP did.¹³ The current article is very interesting and worthy of further discussion.

It is well known that complete tumor resection is the most critical and independent prognostic factor involving both progression-free survival and overall survival in patients undergoing surgical treatment for their malignant diseases,⁹ contributing to the critical and major concern about the choice of surgical methods as well as the identification of risk factors associated with PSM or incomplete resection.¹⁴ All require a thorough, detailed, comprehensive, and careful preoperative evaluation before surgery, although certain parameters cannot be obtained before surgery.⁹ A recent systematic review and meta-analysis (27 studies containing 50 014 PC patients) identified PSM of PC patients after radical prostatectomy (RP) were significantly associated with preoperative prostate-specific antigen (pooled standardized mean differences, 0.37; 95% confidence interval [CI], 0.31-0.43), biopsy Gleason Score (<6/>7) (pooled OR [pOR] 1.53; 95% CI, 1.31-1.79), pathological Gleason Score (<6/>7) (pOR 2.49; 95% CI, 2.19-2.83), pathological stage (<pT2/>pT3) (pOR 3.90; 95% CI, 3.18-4.79), positive lymph node (pOR, 3.12; 95% CI, 2.28-4.27), extraprostatic extension (EPE) (pOR, 4.44; 95% CI, 3.25-6.09), and seminal vesicle invasion (pOR, 4.19; 95% CI, 2.87, 6.13).¹⁵ By contrast, age, body mass index, prostate volume, and NS RP were not associated with PSM.¹⁵ However, Dr. Yang's group did not provide the background data on the aforementioned clinico-pathological factors that may involve the risk of PSM and also failed to use these factors to produce a univariate analysis to detect which factors were associated with PSM. Without the classical and/or traditional approach to investigate the association between

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Conflicts of interest: Dr. Peng-Hui Wang, an editorial board member at the *Journal of the Chinese Medical Association*, had no role in the peer review process of or decision to publish this article. The other authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

Journal of Chinese Medical Association. (2023) 86: 5-6.

Received November 10, 2022; accepted November 13, 2022.

doi: 10.1097/JCMA.0000000000000849.

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well-known or familiar risk factors and clinically worse outcomes, it is hard to convince us that the partial (unilateral) NS RARP was associated with PSM in their study.

NS radical surgery is a relatively hot issue that is appealing to more and more attention in modern clinical practice, since with better understandings of the patho-physiologic mechanisms of the diseases, it is possible to use “not-so-radicality” in place of the original use “radicality” in the management of various kinds of cancer patients who are suitable for surgical treatment.^{16,17} The feasibility and oncological safety of NS radical surgery have been widely discussed, although some concerns are always present and some issues are still being debated.¹⁶ The “not-so-radicality” strategy, NS surgery as an example, may not be fitting for all patients, contributing to the importance of identifying who is suitable for NS RARP. Unfortunately, Dr. Yang did not provide any information about this issue in their article. By contrast, in a recent publication from the same group, the authors attempted to use the following strategy as a combination of both multi-parametric magnetic resonance imaging and prostate health index to predict the EPE,¹⁸ based on the strong correlation between EPE and PSM (at least a four-fold increase in PSM).¹⁵ However, the current Dr. Yang’s study also failed to investigate this part, and in fact, even though they have studied the aforementioned factor (EPE), many reported important and independent risk factors were not included in both studies,^{13,18} contributing to the absence of any response to why partial NS RARP was associated with PSM in their study.

Additionally, the audience may be interested in what’s different between partial (unilateral) and complete (bilateral) NS RARP in the management of PC patients. What is the rationale for treating those PC patients with unilateral NS surgery? Is there any difference between the right side and/or left side, even though either one of them can be considered a unilateral procedure? It is bad news that the authors did not well explain their rationale. One of the possibilities is the decision of unilateral NS RARP made by the tumor location. If the main tumor was located on the left side, unilateral NS RARP was performed on the right side and formal RARP was conducted on the left side. By contrast, it may be possible to be secondary to the “objective decision” or “subjective decision” made by an operator, since stress from the surgical time, surgical situation, and other uncertain reasons may trigger the operator to stop the process of NS RARP, even though the operator has finished one-site NS RARP and the other remaining side was ended by standard RARP due to unknown causes.

Although the argument about the results and conclusion made by Dr. Yang’s group about the association between partial NS RARP and PSM is raised, their efforts to share their experience in using NS RARP in the management of PC patients sound great. Their finding may be further confirmed. Similar to our previous editorial comments, the statistical significance cannot be directly transformed to the clinical significance.¹⁹ Additionally, the accurate and meaningful interpretation of data should always be kept in mind to minimize the risk of misjudgment.^{5,19,20}

ACKNOWLEDGMENTS

This article was supported by grants from the Taiwan Ministry of Science and Technology, Executive Yuan, Taiwan (MOST 110-2314-B-075-016-MY3 and MOST 111-2314-B-075-045) and Taipei Veterans General Hospital (V112C-154 and V112D64-001-MY2-1).

The authors appreciate the support from Female Cancer Foundation, Taipei, Taiwan.

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