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doi:10.1016/j.eururo.2012.03.014

Platinum Priority

Reply from Authors re: Quoc-Dien Trinh, Khurshid R. Ghani, Mani Menon. Robot-assisted Radical Prostatectomy: Ready To Be Counted? *Eur Urol* 2012;62:16–8

Walking the Tightrope: Balancing Cancer Control, Urinary Continence, and Sexual Function—A Programmatic Evolution

Ashutosh Tewari^{a,*}, Anthony Pham^a, Abhishek Srivastava^a, Robert Leung^a, Prasanna Sooriakumaran^{a,b}, Dan Bloch^c, Usha Seshadri-Kreaden^d, April E. Hebert^d, Peter Wiklund^b

^aInstitute of Prostate Cancer and LeFrak Center for Robotic Surgery, James Buchanan Brady Foundation Department of Urology, Weill Cornell Medical College-New York Presbyterian Hospital, New York, NY, USA; ^bDepartment of Molecular Medicine and Surgery, Karolinska University Hospital, Solna, Sweden; ^cDepartment of Health Research and Policy, Stanford University School of Medicine, Stanford, CA, USA; ^dDepartment of Clinical Affairs, Intuitive Surgical Inc., Sunnyvale, CA, USA

Thanks for the opportunity to respond to the editorial comments presented by Trinh et al. [1]. We appreciate the thoughts on the methodology of meta-analysis. This methodology is robust and gives us a good idea about outcomes in terms of margin rates and perioperative complications. While Trinh et al. correctly point out that our paper demonstrates that margin rates are comparable between open and robotic assisted radical prostatectomy (RARP), our paper also demonstrates that the laparoscopic approach results in an increased risk for positive margins when compared to RARP. It also shows that in terms of perioperative complications, RARP is the safest among these approaches [2].

One thing that is difficult to show using a meta-analytic approach is the impact of innovations and refinements that have occurred in robotic surgery since its inception. In addition to achieving negative margins and reduced surgical complications, RARP seeks to achieve the postoperative goals of continence and return of sexual function. It is in the pursuit of these *trifecta goals* for prostatectomy that RARP can have

the greatest impact. For example, in our own surgical cohort, we have been able to bring incremental improvements to the procedure over the years to achieve negative margin rates, urinary continence, and return of sexual function in patients who had good baseline sexual function (International Index of Erectile Function >21) and were candidates for good nerve sparing (grade 1) [2] in ranges >90% in all domains. By relating these trends with our published literature, it can be seen that these innovations have affected outcomes and reflect the process of learning a complex procedure such as radical prostatectomy (Fig. 1 [3–13]).

Initially, we worked on detailed trizonal neural architecture and adopted an athermal technique for nerve sparing [10]. Later on, the development of techniques such as total reconstruction of the vesico-urethral junction has proven to be a safe and effective way to achieve an early return of continence with significant gains when compared to the previous gold standard of no or partial reconstruction [3]. The incorporation of visual cues in surgery has yielded improvements in negative margins, allowing experienced surgeons to make informed intraoperative oncologic decisions [9]. Through adopting a risk-stratified approach to nerve-sparing RARP, we have been able to balance the risk of positive margins with preserving urinary and sexual function, achieving the successful outcomes seen today [4,8]. With these progressive innovations, RARP has seen greater success in achieving optimal outcomes in all areas of the trifecta goals—negative margins, urinary continence, and return to sexual function—as more and more patients are being treated at our surgical center.

Similar developments and refinements are occurring at other programs [14–16]. It would be great to pool the data for similar incremental improvements from multiple institutions and look across the board at the field of innovations in an effort to determine their relationship with improved trifecta outcomes. This is a challenge to tackle in future reviews.

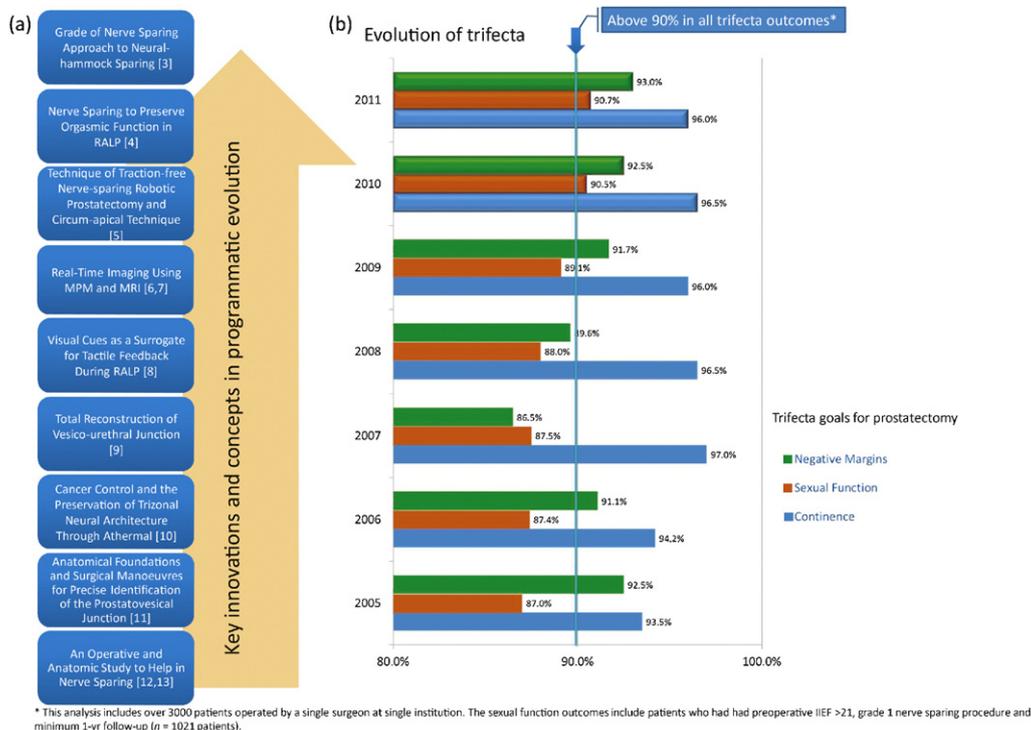


Fig. 1 – (a) Key innovations and concepts published by the Tewari research group beginning in 2005 to the present [3–13] correlated to (b) rates of trifecta goals (negative margins, sexual function, continence) for robotic assisted radical prostatectomy performed by the Tewari surgical group in a similar time period. IIEF = International Index of Erectile Function; MPM = multiphoton microscopy; MRI = magnetic resonance imaging; RALP = robot-assisted laparoscopic prostatectomy.

Conflicts of interest: The authors have nothing to disclose.

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doi:10.1016/j.eururo.2012.04.041