Editorial Comment

Outcomes report of the first ERUS robotic urology curriculum-trained surgeon in Turkey: the importance of structured and validated training programs for global outcomes improvement

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Cite this article as: Mazzone E, Dell'Oglio P, Mottrie A. Outcomes report of the first ERUS robotic urology curriculum-trained surgeon in Turkey: the importance of structured and validated training programs for global outcomes improvement. Turk J Urol 2019; 45(3): 189-90.

See article: Bedir F, Keske M, Demirdöğen ŞO, Kocatürk H, Koç E, Canda AE, et al. Robotic radical prostatectomy in 93 cases: Outcomes of the first ERUS robotic urology curriculum trained surgeon in Turkey. Turk J Urol 2019; 45(3): 183-8.

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Submitted:
22.02.2019

Accepted:
26.02.2019

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Available online at
turkishjournalofurology.com

Robot-assisted radical prostatectomy (RARP) has become the most widely used approach for the surgical treatment of prostate cancer.[1] In this context, the increasing use of robotic surgical platforms has been accompanied with an increasing need for standardized training models aimed at defining structured surgical curricula for robot-assisted systems.[2] Indeed, from a clinical viewpoint, technology innovation in robot-assisted surgery should be sustained by adequate improvements in surgical training programs to guarantee virtually the same clinical outcomes among different centers adopting new robot-assisted surgical platforms. To achieve this goal, the European Association of Urology Robotic Urology Section (ERUS) has designed and developed the first structured curriculum in urology that focuses on RARP.[3,4] The aim of this structured-validated training program is to drive a surgeon with limited robotic experience toward a complete independent full RARP for maximum improvement in the global oncological and functional outcomes of patients treated during their learning curve. Moreover, only ERUS-certified host centers are allowed to provide curriculum courses for RARP to guarantee same quality of training facilities.

In the current manuscript, Bedir et al.[5] assessed oncological and mid-term functional outcomes of the initial RARP series of the first robotic surgeon who completed a certified curriculum course training program at an ERUS-approved academic robotic surgery training center in Ankara. This analysis demonstrated the following two noteworthy findings.

First, both oncological and functional outcomes recorded in the current manuscript are consistent with those described in previous initial series of RARP performed at tertiary care referral centers by experienced surgeons at the beginning of their robot-assisted surgical learning curve. For instance, the remarkably low rate of positive surgical margin (PSM) (10.6%) closely replicates those of initial RARP series of tertiary care referral centers surgeons.[6] This result strengthens the evidence supporting the efficacy of structured training programs on outcome improvement, particularly for surgeons with limited experience. Indeed, from a viewpoint of oncological outcomes, it is important to acknowledge that the current series needs to be interpreted as at the initial phase of the surgical learning curve[7], where a potential plateau of PSM should be expected after 250 procedures.[8] Therefore, further improvement in oncological outcomes may be expected. Similar to oncological outcomes, the reported functional outcomes virtually and perfectly replicate those from tertiary referral centers with high level of experience. Particularly, it is noteworthy to underline the complete urinary continence recovery rate (100%)[9,10] and the high rate of erectile function recovery (62.5%) at 12 months[11], demonstrating the importance of applying standardized training models for achieving excellent functional outcomes. However, given its retrospective nature, this analysis should be interpreted in the light of its potential for selection biases. Moreover, the statistical methodology lacks multivariable analyses that would have further strengthened the conclusions and mitigated the confounding effect of residual biases.

Turk J Urol 2019; 45(3): 189-90
DOI:10.5152/tud.2019.19019

Second, the reported results not only demonstrate the efficacy of structured training programs on trainees' outcomes but also demonstrate the accurate selection of centers that are allowed to provide ERUS-certified programs. Indeed, the standardization process should not only record metrics of trainees' performances but should also be focused on trainers' outcomes to guarantee high-level training models. In this context, the ERUS has recently proposed a Delphi process-derived consensus of expert opinions to define the key elements of the "train-the-trainer" program with the intent of providing a standardized methodology for trainers as well.[12] The standardization process of training remains to be considered as "ongoing." Low complications rates and improvement in oncological and functional outcomes can be achieved on a global prospective with the complete application of high-level training models.

Taken together, the findings of Bedir et al.[5] highlight the importance of standardization and replicability of surgical procedures in the context of robot-assisted surgery to achieve high-level clinical outcomes. Specifically, the current analysis demonstrates that a validated and standardized high-level training program allows to maintain same quality of care among different centers adopting robot-assisted surgical platforms. In conclusion, we believe that the complete application of structured training programs will help the surgical community to maximally improve oncological and functional outcomes and to reduce complication rates during the learning process.

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