VE05 Robotic-Assisted Radical Prostatectomy with minimal apical dissection and lateral prostatic fascia preservation: An evolution of our conventional technique

EUR Urol Suppl 2019;18(6):e2679

Covas Moschovas M., Onol F.F., Seetharam B., Travis R., Patel V.

Global Robotic Insitute, Dept. of Urology, Celebration, United States of America

Introduction & Objectives: Radical prostatectomy is the gold standard surgical treatment for prostate adenocarcinoma. The robotic-assisted radical prostatectomy (RARP) advantages such as lower hospital stay and blood loss are established in the literature. After more than ten thousand robotic prostatectomies, we notice that patients presented faster potency and continence recovery after the modification in our conventional technique. Our objective is to illustrate and describe the robotic-assisted radical prostatectomy with minimal apical dissection and lateral prostatic fascia preservation (MAD/LPFP), an evolution of our technique, and compare to our conventional RARP (cRARP).

Materials & Methods: In this compilation, we have organized our video in four surgical steps to present the differences between MAD/LPFP and cRARP procedures. The surgical technique described for both cases presented six transperitoneal ports placed at the traditional RARP sites (four robotic and two assistant trocars). The same surgeon performed both techniques illustrated in this video with the DaVinci Xi console.

Results: The MAD/LPFPdiffers from the cRARP by the following steps:

1. Endopelvic fascia dissection (EFD): In the cRARP, we used to begin the procedure with the endopelvic fascia opening at the arcus tendinous fascia to dissect the prostate until the apex. In the MAD/LPFP technique, the lateral prostatic fascia is preserved, and the EFD step is performed after the posterior prostate dissection to facilitate the bilateral nerve sparing.
2. Santorini complex stitch: This step used to be performed after the endopelvic fascia opening and apical dissection. The cRARP described one single stitch at Santorini complex before the suspension stitch step. In the current technique, the Santorini bleeding control is performed with a running suture after the apical dissection and before the urethral division.
3. Suspension stitch: The stitch used to be applied to replace the puboprostatic ligaments divided during the apical dissection. However, this step is not performed in the MAD/LPFP technique due to the anatomy preservation after the apical dissection.
4. Apical dissection (AD): In the cRARP, the dissection tends to go further until the urethra, and both puboprostatic ligaments are divided, while the MAD/LPFP approach spares the ligaments and the lateral prostatic fascia. Thus the apical anatomy and the anterior neuronal plexus are preserved.

Conclusions: Robotic radical prostatectomy with minimal apical dissection and lateral prostatic fascia preservation is a safe procedure and should be considered for radical prostatectomies. The data regarding the modification of our conventional technique after ten thousand cases suggest that the apical anatomy preservation and the anterior neuronal plexus sparing are crucial factors related to the earlier potency and continence recovery.