



Tips and tricks for robotic lateral pelvic node dissection

James Chi-Yong Ngu , Nan-Zun Teo 

Department of Surgery, Changi General Hospital, Singapore

Lateral pelvic node dissection can be challenging. In addition to detailed anatomical knowledge of the pelvic side wall, surgeons also need to be proficient in performing fine dissection within the confines of this limited operative field. While the incorporation of robotics can facilitate the safe completion of this technically demanding procedure, this is nonetheless dependent on the way the robotic system is used. This video aims to demonstrate several tips and tricks for performing robotic lateral pelvic node dissection.

Keywords: Robotic surgical procedures; Lymph node dissection

Lateral pelvic node dissection (LPND) can be challenging. Part of the problem arises from the fear that besets the surgeon when embarking on this procedure. This can be attributed to the fact that the pelvic side wall (PSW) is unfamiliar territory for most colorectal surgeons, compounded by the complex vascular anatomy within—namely, the multiple branches of the internal iliac vessels. Many surgeons are apprehensive about the disastrous consequences that can result from potential neurovascular injury during LPND. In addition, the procedure involves technically demanding dissection. First, the tissue planes can be ill-defined and edematous due to lymphatic congestion and radiotherapy. The resultant surgical plume also makes it challenging to maintain clear visualization of the operative field. In addition, the limited space for retraction and dissection results in suboptimal ergonomics, placing a greater demand on an experienced bedside assistant.

Apart from an in-depth knowledge of the 3-dimensional anatomy of the PSW, including the boundaries and landmarks for dissection, the use of robotics helps to facilitate the safe completion of this procedure. This video ([Supplementary Video 1](#)) aims to provide 4 tips and tricks that surgeons can incorporate into their practice of robotic LPND: (1) the protection of essential structures; (2) safe dissection; (3) dealing with bleeding; and (4) improving visualization.

ARTICLE INFORMATION

Conflict of interest

No potential conflict of interest relevant to this article was reported.

Funding

None.

Author contributions

Conceptualization: all authors; Writing—original draft: JCYN; Writing—review & editing: NZT. All authors read and approved the final manuscript.

Additional information

This video was presented at the 2023 Asian Robotic Camp for Colorectal Surgeons (ARCCS) on October 19–21, 2023, in Seoul, Korea.

Supplementary materials

Supplementary Video 1. Tips and tricks for robotic lateral pelvic node dissection.

Supplementary materials are available from <https://doi.org/10.3393/ac.2023.00766.0109>.

Received: November 5, 2023; Revised: November 8, 2023; Accepted: November 21, 2023

Correspondence to: James Chi-Yong Ngu, FRCS (Edin)

Department of Surgery, Changi General Hospital, 2 Simei St 3, Singapore 529889

Email: james_ngu@cgh.com.sg

© 2023 Korean Society of Coloproctology

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.