

Modular approach for single docking robotic colorectal surgery

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We have read the article by Priatno and Kim with great interest (1). The article and attached video describe the single docking technique for rectal resection using the da Vinci[®] Si system. Robotic rectal surgery has shown steady increase during recent times. With challenging ergonomics of heavy mechanical arm of the robotic Si system, arm collision was often quoted as the main reason for limited adoption. With this in mind, surgeons have tried various other techniques such as hybrid, laparoscopic assisted or double docking as possible solution to this problem (2-4). We concur with authors regarding the stepwise approach for single docking robotic rectal surgery. This technique is now well established for robotic rectal cancer surgery (5,6).

Single docking approach is slightly demanding especially during learning curve. In addition, while performing the splenic flexure mobilization, collision of robotic arms during dissection in left upper compartment of abdominal cavity may pose further challenges. Hence, splenic flexure mobilization is probably the most challenging part during single docking approach, while using Si robotic system, as patient remains in the maximum Trendelenburg and right tilt position during the entire procedure. Applying similar principles of stepwise technique, we have published our three steps standardized approach for complete mobilization of splenic flexure during single docking colorectal surgery (7).

We agree with authors that this technique is safe, feasible and may reduce some operative time due to single docking. Perhaps now, the single docking technique has become easier and hassle free with the use of next generation of robot da Vinci[®] Xi surgical system. It has different port configuration and has ability to change patient's position, during various steps of operation, through an integrated cart and table motion system, without undocking.

In our practice, we have developed and described the modular stepwise approach for the laparoscopic colorectal surgery and later on the same standardized approach was applied for the robotic colorectal surgery (5,8,9).

We believe a standardized and stepwise technique is the key aspect of minimally invasive surgery. It is an effective method for learning complex surgical procedures. The stepwise approach is also useful for trainee surgeons to learn and master the operation. Furthermore, it helps to develop a sense of pattern recognition of surgical planes, which is vital for dissection in the correct operative field. The dissection between the true embryological layers i.e., correct planes enables to operate in bloodless field. We have published the largest case series from the UK that has demonstrated robotic surgery involves minimal blood loss (5).

In conclusion, authors have made an excellent effort to demonstrate the stepwise approach in this video article, and we believe this approach has significant inherent benefits for patients as well as training and learning robotic surgery.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Comment on: Priatno E, Kim SH. Single stage robotic total mesorectal excision—a stepwise approach. *J Vis Surg* 2015;1:24.

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