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Opinion

Transanal Total Mesorectal Excision - A New Approach to Minimally Invasive Surgical Treatment of Rectal Cancer with Mid and Distal Location

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Transanal reversed Total Mesorectal Excision is an innovative high-tech method with an exponentially increasing use worldwide since its introduction by Antonio Lacy in 2011. The technique was developed using a single port - platform to improve the quality of the total mesorectal excision of rectal cancer in low- and middle- third localization. The distal mesorectum is processed by transanal access in caudo-cranial direction which facilitates its dissection with adequate visual indication of the distal margin. That technology potentially offers more precise performance of "acute" dissection with a higher percentage of complete removal of the specimen in ablastic borders and a lower percentage of tumor involvement of circumferential resection line. This approach is applied in highly specialized centers but there are still no randomized clinical trials examining the full advantages and drawbacks of this new technology. COLOR III, which launched in late 2015, is the first such large-scale study. Despite the potential benefits and enthusiasm in introducing this method, the method of implementation is relatively complex, it requires serious technical security and a long learning curve. Certain relatively new serious complications associated with this procedure which are not observed in conventional approaches have been published in no large cohorts. Iatrogenic lesion of the urethra, injury to the structures of lateral pelvic wall with life-threatening bleeding as well as lesion on the lower hypogastric nerves are documented complications occurring less frequently in "conventional laparoscopic" cranio-caudal TME. Introduction of this technique requires serious training programs, preparation of guide-line and monitoring of results. These requirements were the target of the TaTME Congress held in May 2016 in Amsterdam.

The evolving tendency towards minimally invasive surgical approaches to rectal cancer continues to face problems such as the necessity of adequate visual exposure of the pelvis, distal ablastic rectal division, lower pelvic anastomosis as well as the appropriate for all of this technical equipment. Laparoscopic transanal total mesorectal excision was developed as an innovative alternative that offers certain advantages over the problems of conventional open and laparoscopic rectal surgery but put their own specific problems whose solution requires a coordinated approach at a multinational level.

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