



Invited Commentary

Commentary on “The minimum distal resection margin in rectal cancer surgery and its impact on local recurrence - A retrospective cohort analysis”



Dear Editor,

Even in the 21st century, surgical decision-making on balancing cure with function is complex, especially for low rectal cancer. Physical examination to detect tumor involvement of the levators or external sphincter, careful interpretation of MRI and imaging findings, adequate assessment of tumor response to chemoradiation, and the ability of the surgeons to obtain clear surgical margins are means which allow surgeons to choose a sphincter-preserving procedure rather than an abdominoperineal resection.

The optimal distance that constitutes an adequate distal mural margin (DMM) to achieve the best oncological results is still a subject of debate. A negative histopathological circumferential resection margin (CRM) is the most important factor in determining the risk of recurrence and in improving overall survival [1].

The lymphatic drainage of the rectum is known to occur generally in a cephalad direction towards the major lymph node stations. Pathological studies have also shown distal mesorectal spread can occur as far as 2–3 cm below the lower palpable edge of the tumor. Most guidelines recommend the extent of resection to be 4–5 cm below the distal edge of tumor for adequate mesorectal excision. For mid and low rectal tumors, a dissection of 2–3 cm below the tumor would end at the pelvic floor. Attempts to achieve a 1 cm are reasonable as the distal intramural extension is within 1 cm in the majority of patients [2].

However, it is difficult to maintain this margin in patients with a big tumor in a narrow anatomical pelvis. New approaches to treat rectal cancer like robotic and transanal total mesorectal excision surgery (TATME) have been introduced to achieve better pathological results by including a longer distal mural margin. In a recent metaanalysis, laparoscopic and robotic surgery achieved comparable pathologic outcomes, but with better outcomes for the DMM for robotic surgery [3]. It is currently unclear whether a better DMM can be translated into long-term survival benefits because only one study reported the long-term outcomes of the procedure. Laparoscopic surgery resulted in more patients with incomplete or nearly complete mesorectal excisions

compared with open surgery, and in more involved circumferential resection margins compared with transanal surgery. Robotic surgery resulted in longer distal resection margins compared with open, laparoscopic, and transanal surgery [4].

A recent study [5] showed that R0 resection of stage II and II rectal cancers of the mid and lower third rectum after preoperative chemoradiotherapy (CRT) yielded excellent results even with a DMM < 1 cm. Thus, minimizing the distal resection margin may allow surgeons to offer sphincter sparing surgery without compromising local recurrence-free and overall survival in individual patients.

However, the minimum distal resection margin should be based on individual patients (age, comorbidities, body habitus, continence, and patient wishes) and tumor characteristics (localization, size, stage). We should explain to our patients that we are operating for local control, and will proceed with sphincter preservation provided that cure is not compromised.

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