Editorial

Local excision of scars after a complete clinical response to neoadjuvant CRT in rectal cancer—organ-preservation without function-preservation?

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Management of rectal cancer has changed significantly over the last few decades (1). First, appropriateness of surgical technique with standardization of total mesorectal excision led to a substantial decrease in local recurrence rates (2). Second, the role of neoadjuvant chemoradiotherapy (nCRT) in further decreasing local failures after TME is currently well established (3). Finally, with optimal local disease control, the concept of organ-preservation has become an attractive alternative to patients with significant primary tumor regression after nCRT. In this setting, selecting patients with complete clinical response (cCR) could be managed by no immediate surgery or transanal local excision providing not only excellent oncological outcomes but also acceptable functional results (4-7).

Ghiselli *et al.* have investigated the functional outcomes of patients that have developed a cCR and were managed by routine transanal endoscopic microsurgery (TEM) (8). The data suggests minimal postoperative complication rates and excellent functional outcomes leading the authors to conclude that such approach could be considered the preferred organ-preserving treatment strategy for patients with cCR after nCRT for patients with rectal cancer. In fact, perhaps the most appropriate tool to assess functional outcomes among these patients would have been the low anterior resection syndrome score recently validated in multiple languages instead of the fecal incontinence scores and questionnaires used in the study (9).

Nevertheless, there are a few additional considerations that should be considered prior to full implementation of this approach into clinical practice.

First of all, assessment of patients after 30 days from completion of nCRT may have significantly affected the outcomes of the study. Not only this relatively short interval may have underestimated the proportion of patients with cCR but also significantly underestimated functional outcomes at "baseline". Acute effects of radiation after 30 days may have worsened functional outcomes at baseline leading to less striking differences with postoperative assessment results at 1 year (10).

Second, even though a significant number of patients were entered into the study, the absence of sample size calculation due to its retrospective design may also represent a significant source of bias. Ultimately, it is likely that this number of patients led insufficient power of the study to demonstrate any clinically relevant differences.

Third, the inclusion of patients with considerably high-located tumors (70% were beyond 5 cm from the anal verge) is relevant here. This is because organ-preservation is more critical for most distal rectal tumors. Preservation of the rectum to these patients may provide a more significant benefit than for patients with more proximal lesions, where anterior resections may provide acceptable functional results. Local excision in this latter group of patients is unlikely to require any amount of sphincteric resection and therefore result in minimal functional consequences (11). It would have been perhaps more meaningful to provide a comparison of functional outcomes of these two organ-preserving strategies among patients that otherwise would

have required ultra-low anterior resections or abdominal perineal excisions. In this case, local excision would probably require at least partial resection of sphincter complex leading to potentially worse functional outcomes.

Finally, when comparing non-operative management to transanal local excision as organ-preserving strategies for patients with rectal cancer following nCRT, one has to consider the consequences of each alternative to regular follow-up. In both cases, thorough follow-up of the preserved rectum is crucial to provide early detection of local recurrences and appropriate salvage resection in this situation (12). Here non-operative management after a cCR may provide minimal distortion of the anatomy of the rectum seen by endoscopic or radiological assessment. In contrast, local excision and significant postoperative scarring may represent a significant challenge for endoscopic and radiological assessment during post-operative follow-up (13). These difficulties may result in clinically relevant consequences oncological outcomes after a local recurrence (14).

Altogether, even though the present study may provide data suggesting the advantages of local excision for the management of cCR over observation alone, a few significant limitations of the study may ultimately have underestimated the proportion of patients that worsened their anorectal function after a local excision. Considering that nearly one out of five patients became incontinent after TEM, local excision of a fibrotic scar (with not a single cancer cell in the resected specimen) may ultimately be already significantly deleterious in the absence of no oncological benefit to close surveillance alone with no immediate resection.

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