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Pathological evidence in support of total mesorectal excision in the management of rectal cancer

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Abstract
Background: Pelvic recurrence following conventional rectal resection for cancer is common. Preoperative iradiation has been shown in prospective randomized studies to halve this risk.
Aim: This multiinstitutional study aimed to assess the necesity of total mesorectal excision in rectal cancer.
Patients and method: Pathological resections from 50 consecutive patients with adenocarcinoma of the rectum within 12 cm of the anal verge who underwent currative resection incorporating total mesorectal excision were examined. The resection specimen was examined by one of two pathologists. Some 50 total mesorectal excision specimens were examined following rectal excision for cancer. Some 38 had total mesorectal excision as a component of a low anterior resection and 12 with abdomino-perineal resection. “Cure” was defined as absence of metastatic disease and the excision of entire macroscopic tumor tissue with negative proximal and distal borders. TME was performed as described by Heald et al. The mesorectum was evaluated for lymph nodes and tumor deposists in three areas: deep to the tumor, in the proximal mesorectum and in the distal mesorectum.
Results: Six patients had Dukes A lesions. Of 21 patients with Dukes B tumors, five had discrete foci of adenocarcinoma in the mesorectum, with no evidence of lymph node metastasis. Dukes C lesions were more heterogeneous, but 12 out of 23 patients had distinct mesorectal deposists in addition to mesorectal node involvement. Circumferential margin involvement was rare, but mesorectal tumor deposits were present in 17 of 44 patients with pT3 tumors, and 23 of 44 had mesorectal nodal involvement. No patient with a pT2 tumor had mesorectal involvement. Failure to excise the mesorectum completely has the potential to leave gross or microscopic residual disease that may in theory predispose to local failure.
Conclusion: Total mesorectal excision is necessary to avoid incomplete pathological evaluation of the mesorectum and understaging of rectal cancer.
Key words: mesorectum, total mesorectal excision, rectal cancer

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