Review

**Current treatment of rectal cancer adapted to the individual patient**

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Abstract

Preoperative radiochemotherapy and total mesorectal excision surgery is a recommended standard therapy for patients with locally advanced rectal cancer. However, some subgroups of patients benefit more than others from this approach. In order to avoid long-term complications of radiation and chemotherapy, efforts are being made to subdivide T3N0 stage using advanced imaging techniques, and to analyze prognostic factors that help to define subgroup risk patients. Long-course radiochemotherapy has the potential of downsizing the tumor before surgery and may increase the chance of sphincter preservation in some patients. Short-course radiotherapy (SCRT), on the other hand, is a practical schedule that better suits patients with intermediated risk tumors, located far from the anal margin. SCRT is also increasingly being used among patients with disseminated disease, before resection of the rectal tumor. Improvements in radiation technique, such as keeping the irradiation target below S2/S3 junction, and the use of IMRT, can reduce the toxicity associated with radiation, specially long-term small bowel toxicity.

**Keywords**

Rectal cancer; Preoperative radiotherapy; Individualized treatment