Preoperative Radiotherapy for Resectable Adenocarcinoma of the Rectum

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Objective: To evaluate recurrence and survival rates in patients with resectable rectal adenocarcinoma treated with preoperative radiotherapy.

Patients and Methods: Two hundred and ten patients with resectable rectal adenocarcinoma treated with preoperative radiotherapy and surgery were seen for a minimum 5 years of follow-up. No patient received adjuvant chemotherapy.

Results: Local control was 94% at 5 years and 90% at 10 years. Absolute and cause-specific survival rates were 62% and 72% at 5 years, and 40% and 63% at 10 years, respectively. Delayed wound healing and postoperative infections were the most common acute treatment-related side effects, each occurring in 17% of cases. Small bowel obstruction occurred in 4% of patients. Anastomotic leak occurred in 3 (12%) of the 25 patients in whom low anterior resection was performed.

Conclusion: This data demonstrates that moderate-dose preoperative radiotherapy increases the likelihood of local control for resectable rectal adenocarcinomas and may thus improve survival. The risk of significant treatment-related complications with this approach is low. (HK Coll Radiol 2002;5:88-96)

Key Words: Radiotherapy, Rectal neoplasms, Surgery