## Retrospective long-term results and prognostic factors of postoperative treatment for UICC stages II and III rectal cancer

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## ABSTRACT

Aims. To retrospectively evaluate 5-year local control, disease-free survival, cancer-specific survival and overall survival rates in patients with UICC stages II and III rectal cancer treated with adjuvant therapy and especially to analyze the impact of some prognostic factors on clinical outcome at univariate and multivariate analyses.

Methods and materials. We retrospectively reviewed 306 patients treated with postoperative 5-fluorouracil-based chemoradiation (278 patients) or radiotherapy alone (28 patients) after curative surgery. The following prognostic factors were considered at univariate and multivariate analyses: age, sex, tumor location, surgery procedure, pathological stage, histology, tumor grade, surgical margins and radiotherapy technique.

**Results.** The 5-year actuarial rates for local control, disease-free survival, cancer-specific survival and overall survival were respectively 89.7%, 59.7%, 68.6% and 61.4% for the 278 patients (91%) treated with postoperative chemoradiation. Univariate analysis showed that abdominal-perineal resection impacted disease-free survival and that the T4 variable had an impact on cancer-specific survival and disease-free survival. Instead, age  $\geq$ 70, N2, IIIB (p T3 p N1) and IIIC (p T3 p N2) stage impacted cancer-specific survival, disease-free survival and rate of distant metastases. Multivariate analysis showed as significant variables age  $\geq$ 70 years, pN1 and pN2 and extraperitoneal tumor location.

Conclusions. Our retrospective study showed a good 5-year local control. Factors such as individual pT4, pN1, pN2, age  $\geq$ 70 years, abdominal-perineal resection, stages IIIB-IIIC versus II-IIIA and extraperitoneal tumor location negatively influenced disease-free survival, distant metastases and cancer-specific survival. Differences exist between stages II and III rectal cancer and treatment modulation and intensification are required in order to offer the most appropriate and effective adjuvant treatment and to improve survival of rectal cancer patients.

**Key words:** adjuvant treatment, prognostic factors, radiochemotherapy, rectal cancer.

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