MODERN TREATMENT OF RECTAL CANCER CLOSES THE GAP BETWEEN COMMON ADENOCARCINOMA AND MUCINOUS CARCINOMA

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Introduction: Mucinous adenocarcinoma (MC) is a distinct form of rectal cancer comprising 10% of all cases and has been associated with an impaired prognosis compared with nonmucinous adenocarcinoma (AC). It is doubtful whether preoperative radiotherapy with or without chemotherapy is effective in MC patients, but a prospective randomized trial to answer this is not feasible.

Methods: Clinical and pathological data from four independent study populations were analyzed and enabled an analysis over different time periods for the most common treatment options. Patients from the randomized multicentre TME trial (N = 1530) that compared addition of short-term radiotherapy (5x5 Gy) to TME surgery and patients from a prospectively recorded locally advanced rectal cancer database (N = 576) who received preoperative chemoradiotherapy were used. Moreover, a dataset containing 38,035 patients diagnosed with rectal cancer was extracted from the Netherlands Cancer Registry (NCR) and from the Dutch pathology registry (PALGA) 4890 recent rectal cancer patients were selected.

Results: Data from the NCR confirmed that 5-year overall survival for MC was significantly worse from 1989-1998, but was no longer different from AC from 1999 onwards. MC patients had a higher rate of positive circumferential resection margin (CRM) than AC in all study populations, but a decrease in positive CRM was observed over time in both subtypes. MC patients who were treated with short-term radiotherapy and had a positive CRM were associated with a dismal prognosis. There was no difference in overall survival between MC and AC patients who received preoperative chemoradiotherapy.

Conclusion: In the era of modern rectal cancer treatment survival between MC and AC patients is no longer different. Free CRM is essential for a good outcome in both subtypes and given the higher rate of positive CRM in MC, this should be the main focus during treatment of rectal MC and warrants a more prominent role for preoperative chemoradiotherapy in MC patients.