

SPHINCTER PRESERVATION IN FOUR CONSECUTIVE PHASE II STUDIES OF PREOPERATIVE CHEMORADIATION: ANALYSIS OF 247 T3 RECTAL CANCER PATIENTS

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Aims and background: To evaluate the impact of preoperative chemoradiation on sphincter preservation in patients with low-medium locally advanced resectable rectal cancer treated by four chemoradiation schedules.

Materials and methods: Between 1990 and 2002, 247 patients were treated according to four schedules of chemoradiotherapy: FUMIR (5-fluorouracil, mitomycin, external beam radiotherapy 37.8 Gy), PLAFUR (cisplatinum, 5-fluorouracil, external beam radiotherapy 50.4 Gy), TOMRT (raltitrexed, external beam radiotherapy 50.4 Gy), and TOMOXRT (raltitrexed, oxaliplatin, external beam radiotherapy 50.4 Gy). Four to five weeks after chemoradiation, patients were restaged and surgery was performed 2-3 weeks later.

Results: Overall, the sphincter-saving surgery was performed in 82.5% of patients. In patients candidate to an abdominoper-

ineal resection before chemoradiation (distance tumor-anorectal ring, <30 mm) a sphincter-saving surgery was possible in 58% of cases: 44% (FUMIR), 52% (PLAFUR), 63% (TOMRT), 76% (TOMOXRT) ($P < 0.017$). The involved surgeons kept the same surgical criteria in performing sphincter-saving surgery. After chemoradiation, patients with tumor location still between 0 and 30 mm received sphincter-saving surgery according to the protocols: 33% (FUMIR), 42% (PLAFUR), 50% (TOMRT), 64% (TOMOXRT) ($P = 0.066$)

Conclusions: Even though the surgeons' skill in performing sphincter-saving surgery could be improved with time, the high rate of this procedure in the latest schedules suggests an impact of the new drugs in promoting tumor downsizing and therefore sphincter-saving surgery.

Key words: combined modality therapy, infusional chemotherapy, preoperative radiotherapy, rectal neoplasms, sphincter-saving procedure.