The treatment results of preoperative chemoradiation alone without definitive surgery in locally advanced rectal cancer

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Background To analysis the survival result of preoperative concurrent chemoradiation of patients who refused surgery in locally advanced rectal cancer.

Methods Eighteen patients with biopsy proven rectal cancer who received preoperative chemoradiation and refused surgery after neoadjuvant therapy were entered into this retrospective study. There were 13 males and 5 females with median age of 60 years. Tumor distance from the anal verge ranged from 0 to 8 cm (median 3 cm). The pretreatment TNM staging distributions were T2N0 in 6% (1), T3N0 in 33% (6), T3N1-2 in 61% (11). Radiation of 45 Gy was delivered to the whole pelvis followed by 5.4 Gy boost to primary site. Median total radiation dose was 50.4 Gy. All patients received concurrent 2 cycles of 5-fluorouracil (500 mg/m²/day) and leucovorin (20 mg/m²/day). All patients did not receive further treatment after chemoradiation.

Results Median follow-up was 28 months with a range of 8 to 81 months. Sixteen patients (89%) were candidates for abdomino-perineal resection. One patient had clinical complete response at 1 month after treatment. The 5-year overall survival and median survival were 27% and 31 months, respectively. Surprisingly, four of 18 patients (22%) survived over 5 years and considered as had achieved a pathologic complete response. Among 4 patients, 3 are still alive after 65 months and 1 died at 75 months with unknown cause. Acute treatment toxicity was acceptable. There was grade 3 leukopenia in 1 patient (6%) and grade 3 skin erythema in 9 patients (50%).

Conclusion Preoperative chemoradiation in the rectal cancer is known as increasing of tumor downstaging and the chance of sphincter preservation surgery. In this study, the 5-year survival was comparable with pathologic complete response rate in other chemoradiation studies. This result suggests that pathologic complete regression of tumor induced by preoperative chemoradiation has a potential of long-term survival.