Efficacy of dendritic cell-cytokine-induced killer immunotherapy plus intensity-modulated radiation therapy in treating elderly patients with esophageal carcinoma


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ABSTRACT. We investigated the clinical efficacy of adoptive cytokine-induced killer (CIK) cell and dendritic cell (DC) therapy plus intensity-modulated radiation therapy (IMRT) for treating elderly patients with esophageal carcinoma (EC). In total, 68 elderly patients with EC were randomized to receive IMRT plus DC-CIK immunotherapy (study group, N = 34) or IMRT only (control group, N = 34). Clinical efficacy, immune function, toxicity and side effects, and life quality were evaluated after treatment. The efficacy rate was significantly higher in the study group than in the control group. Remarkable increases were noted for quality of life and immune function in the study group relative to the control group. Regarding toxicity and side effects, compared with the control group, the study group displayed a higher fever rate, a lower incidence rate of bone marrow suppression, and a similar rate of digestive tract reactions. DC-CIK immunotherapy plus IMRT exhibited
better short-term efficacy than IMRT alone in elderly patients with EC. The therapy could improve patients’ quality of life and immune function, decrease bone marrow suppression, and lengthen survival time.

**Key words:** Immunotherapy; Radiotherapy; Esophageal carcinoma; Aged population