IMMUNOCHEMICAL EVALUATION OF PERSONALIZED PEPTIDE VACCINATION FOR PATIENTS WITH CYTOKINE REFRACTORY ADVANCED RENAL CELL CANCER

Suekane S.1, Noguchi M.1, Komohara Y.1, Nishitani M.1, Kanayama H.1, Itoh K.1, Matsuoka K.1

1Kurume University School of Medicine, Urology, Kurume, Japan, 2Kurume University School of Medicine, Immunology, Kurume, Japan, 3Tokushima University, Urology, Tokushima, Japan

Introduction & Objectives: The purpose of this study was to determine the safety and immune responses of personalized peptide vaccine for patients with cytokine refractory advanced renal cell cancer.

Material & Methods: Nine patients with human leukocyte antigen (HLA)-A24+ or -A2 Patients who had cytokine refractory advanced renal cell cancer received biweekly personalized peptide vaccine for 6 times with positive peptides (up to 4 kinds of peptides) from 12 or 16 kinds of vaccine candidates. Peptide-specific cytotoxic T lymphocyte (CTL) precursor analysis by interferon-γ production, and peptide-reactive immunoglobulin G (IgG) using an enzyme-linked immunosorbent assay were monitored during the treatment.

Results: The personalized peptide vaccination was safe and well tolerated with no major adverse effects during 6 times vaccinations. Increased CTL response and the anti-peptide IgG titer were observed in the post-vaccination samples in 4 of 9 or 7 of 9 patients, respectively. Five patients were stable disease and three patients were progressive disease of these 9 patients by response evaluation criteria in solid tumors (RECIST) after the 6th vaccination. One patient with spinal bone metastases had a good response by MRI evaluation.

Conclusions: These results encourage the further evaluation of the peptide vaccination for the patients with cytokine refractory advanced renal cell cancer.

IMMUNOTHERAPY WITH DENDRITIC CELLS IN PATIENTS WITH METASTATIC RENAL-CELL CARCINOMA: MAINTENANCE OF QUALITY OF LIFE

Leohartsberger N., Falkensammer C., Putz T., Bartsch G., Ramoner R., Thurner M.

Innsbruck Medical University, Urology, Innsbruck, Austria

Introduction & Objectives: Patients with advanced renal-cell carcinoma (RCC) undergoing conventional therapy show a markable decline in quality of life. We have performed a clinical study of a dendritic cell (DC)-based vaccine in patients with advanced RCC. Our objective was to evaluate quality of life (QOL) in patients undergoing DC therapy.

Material & Methods: A total of 14 patients with histologically confirmed metastatic RCC were enrolled in the study after informed consent had been obtained. Treatment was initiated 5 weeks after nephrectomy. The patients received 3 intravenous infusions of antigen-pulsed, activated DCs in 3 weeks intervals. Before the first and after the third vaccination patients completed a quality of life questionnaire (EORTC QLQ-C30, version 3.0). Data was transferred into scale scores and analyzed using SPSS 12.0 software. Mean values of the resulting scores were compared using students T-Test and Wilcoxon rank sum test. P<0.05 was considered statistically significant.

Results: Median age of patients was 59.7 years (range 30-75) including 3 women and 11 men. Treatment with fully activated DC was well tolerated with moderate fever as the only side effect. Median overall survival of patients was 15.2 months. However, only 5 median survival and cancer specific survival time were comparable to data analysis (July 2006). All patients orally reported no serious deterioration of QOL within 10 weeks during medical consultation. This was confirmed by comparing mean values of all scores. No significant reductions of physical or psychical scores were found.

Conclusions: Our data indicate that DC-based vaccination is well tolerated and accepted without impairment of QOL. DC-therapy therefore might be an attractive nontoxic treatment for patients with advanced RCC.