

ABSTRACT

Objective: The aim of this observational study was to investigate correlations between long-term chemotherapy-induced peripheral neurotoxicity (CIPN) and quality of life (QOL) (physical well-being, social well-being, emotional well-being [EWB], and functional well-being [FWB]) among survivors of gynecologic cancer (GC).

Methods: We aimed to assess the correlation of QOL and long-term CIPN with the temporal change in recurrence-free GC survival. Questionnaire responses and clinical data of 259 GC survivors were collected and assessed according to treatment received. The χ^2 test was used to determine the significance of correlations.

Results: Of 165 evaluable patients treated by chemotherapy, 36 patients (21.8%) developed CIPN of Common Toxicity Criteria for Adverse Events Grade ≥ 1 during the study. CIPN had significantly improved over time in the domain of FWB at ≥ 61 months after the end of chemotherapy (post-treatment⁴) among GC survivors ($p=0.003$).

Furthermore, CIPN treated by more than 6 courses of the paclitaxel and carboplatin (TC) regimen among GC survivors showed significant improvement over time in the EWB domain at 25–60 months and ≥ 61 months after the end of chemotherapy (post-treatment³ and 4) ($p=0.037$ and $p=0.023$) and in FWB at post-treatment⁴ ($p<0.001$).

Conclusions: Emotional and functional domains of CIPN improved over time among GC survivors treated by more than 6 courses of the TC regimen. Based on these results, further research is required to identify additional preventative or curative approaches.

Keywords: gynecologic cancer survivors, chemotherapy-induced peripheral neurotoxicity, quality of life, functional assessment of cancer therapy-general