

Global Summit on

ONCOLOGY & CANCER

May 25-27, 2017 Osaka, Japan

The effect of chemotherapy-induced neuropathy symptoms on physical function and risk of falls in cancer patients received neurotoxic chemotherapy

Ping Wang and Gary M Abrams
University of California, USA

Statement of the Problem: Chemotherapy-Induced Neuropathy (CIN) is a common adverse effect due to cancer treatment. Sensory and motor symptoms of CIN caused balance impairments and postural instability, however, the health outcomes of physical function and falls are not well studied. This study aims to quantify the effect of CIN symptoms on the occurrence of falls in patients received taxanes, platinum compounds or both, and compare physical function between patients with and without CIN.

Methodology & Theoretical Orientation: The occurrence of falls, physical function, and psychological function were compared between patients with and without CIN. Adjusted logistic models were used to determine CIN symptoms that were associated with falls.

Findings: Of the total 383 participants, 86.2% of participants developed CIN. For physical function, CIN patients had a lower score (33.1 ± 6.8 vs. 35.2 ± 6.0 ; $p=0.02$) assessed by Fullerton Advanced Balance (FAB) Scale, and a longer time (8.0 ± 2.6 vs. 6.8 ± 1.8 ; $p<0.001$) measured by the Timed Up and Go (TUG) test. 53.5% of patients reported falls since starting of neurotoxic chemotherapy. The increased number (OR=1.74, 95%CI: 1.54-1.97) and each of CIN symptoms including numbness (OR=6.44, 95%CI: 3.42-12.14), tingling (OR=3.63, 95%CI: 2.04-6.46), sensitivity to cold temperatures (OR=2.19, 95%CI: 1.33-3.60), nerve pain (OR=2.01, 95%CI: 1.25-3.26), muscle/joint aches (OR=2.95, 95%CI: 1.79-4.87), muscle weakness (OR=7.72, 95%CI: 4.52-13.16) are significantly associated with falls ($p<0.001$). **Conclusion & Significance:** Patients received neurotoxic chemotherapy in this cohort had normal physical function assessed by clinical measurements. But CIN symptoms were significantly associated with a higher risk of falls, which addresses the importance of assessing CIN and other cancer-related symptoms early to prevent falls and ensure patients' safety.

Biography

Ping Wang has her educational background in Nursing and advanced training in Clinical Research. With the passion for providing a better healthcare to cancer patients, she is interested in evaluating the phenotypes of chemotherapy-induced neuropathy (CIN) through comprehensive surveys and cross-sectional studies. With years of experience working in hospital and academic institutions, her study has the advantage of the scientific study design, informative data, and appropriate analyses collaborated with clinical professionals, biostatistics, etc. This study provides the foundation to understand cancer-related symptoms and help clinical professionals to help patients improve the quality of life.

pwang@ucsf.edu

Notes: