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Comparison of Weekly Versus Every Three Weeks Adverse Effects of Paclitaxel as Adjuvant Chemotherapy in Breast Cancer Patients

Ayesha TARIQ[1,2*], Muhammad TAHIR AZIZ[3], Yasir MEHMOOD[1], Shehroz Ali ASGHAR[4], Muhammad JAMSHAID[1] & Syed Atif RAZA[5]

[1] University of Central Punjab, Lahore Pakistan
[2] Ghurki Trust Teaching Hospital, Lahore, Pakistan
[3] Department of Pharmacy, Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore & Department of Pharmacy, Quaid-i-Azam University, Islamabad, Pakistan
[4] Basic Health Unit, Muridke, Pakistan
[5] University College of Pharmacy, Punjab University Lahore

SUMMARY. **Paclitaxel is generally administered intravenously every one or 3 weeks for different types of malignancies. The toxicity profile of two different frequencies remains controversial. The comparative, analytical, cohort, retrospective study conducted in a tertiary cancer care hospital. A total 100 patients that had met the inclusion criteria (breast cancer patients treated with paclitaxel and having no serious co-morbidities) of 2 years were included in this study. Patients were stratified into two groups; group 1 (50 patients) had received 3 weekly paclitaxel (175mg/m^2) treatment, while group 2 (50 patients) received weekly paclitaxel (80 mg/m^2) treatment. The patients' clinical data including relevant laboratory tests were collected and evaluated for all adverse events. The significant adverse events were found for anemia (P = 0.012; RR = 0.80), neutropenia (P = 0.000; RR = 0.24), leukopenia (P = 0.000; RR = 0.22), ALP elevation (P = 0.026; RR = 2.11), peripheral neuropathy (P = 0.000; RR = 0.44), nausea (P = 0.014; RR = 0.54), fatigue (P = 0.037; RR = 1.2), fever (P = 0.001; RR = 0.23), weakness (P = 0.001; RR = 0.08), flushing (P = 0.022), throat ache (P = 0.006), and Eustachian tube dysfunction (P = 0.041). All the above results except ALP elevation and fatigue were in favor of 3 weekly paclitaxel. It was concluded that 3 weekly paclitaxel has less chance to develop adverse events except alkaline phosphatase elevation and fatigue, and is considered safer than weekly treatment in respect of serious adverse events.**

RESUMEN. Paclitaxel generalmente se administra por vía intravenosa cada una o 3 semanas para diferentes tipos de tumores malignos. El perfil de toxicidad de las dos diferentes frecuencias sigue siendo controvertido. Un estudio comparativo, analítico, de cohortes y retrospectivo fue realizado en un hospital terciario de atención del cáncer. Un total de 100 pacientes que habían cumplido los criterios de inclusión (pacientes con cáncer de mama tratados con paclitaxel y sin comorbilidades graves) de 2 años se incluyeron en este estudio. Los pacientes fueron estratificados en dos grupos: el grupo 1 (50 pacientes) recibió 3 dosis semanales de paclitaxel (175 mg/m^2) mientras que el grupo 2 (50 pacientes) recibió tratamiento semanal con paclitaxel (80 mg/m^2). Se recogieron los datos clínicos de los pacientes, incluidas las pruebas de laboratorio pertinentes, y se evaluaron todos los eventos adversos. Los eventos adversos significativos fueron anemia (P = 0.012, RR = 0.80), neutropenia (P = 0.000, RR = 0.24), leucopenia (P = 0.000, RR = 0.22), elevación de ALP (P = 0.026; RR = 2.11), neuropatía periférica (P = 0.000, RR = 0.44), náuseas (P = 0.014, RR = 0.54), fatiga (P = 0.037, RR = 1.2), fiebre (P = 0.001, RR = 0.23), debilidad (P = 0.001; RR = 0.08), rubor (P = 0.022), dolor de garganta (P = 0.006) y disfunción de la trompa de Eustaquio (P = 0.041). Todos los resultados anteriores, excepto la elevación de ALP y la fatiga, fueron a favor de 3 dosis semanales de paclitaxel. Se concluyó que 3 paclitaxel semanales tienen menos posibilidades de desarrollar eventos adversos, excepto la elevación de la fosfatasa alcalina y la fatiga, y se considera más seguro que el tratamiento semanal con respecto a los eventos adversos graves.

KEY WORDS: adjuvant chemotherapy, dose frequency, paclitaxel, toxicological profile.

* Author to whom correspondence should be addressed. *E-mail:* Ayeshatariq592@gmail.com

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