A Retrospective Study of Carboplatin Adverse Effects in Oncology Patient at Bumrungrad International Hospital from January 2011 to January 2012

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Background: The incidence, the severity and the adverse events from carboplatin trend to be increasing every year which can cause more non-compliance and harmful to the patients. In 2012, there were the adverse events of hypersensitivity reaction grade 2-3 from the patients (greater than 5 patients) who received carboplatin containing regimen which has never been seen before at Bumrungrad International Hospital. Moreover, hypersensitivity and other adverse events from this medication might be associated with life threatening consequence.

Objectives: To collect and evaluate the incidence and severity of the patients who experienced with carboplatin-associated hypersensitivity and other adverse events such as hematological toxicity, peripheral neuropathy and gastrointestinal toxicity as primary and secondary purpose respectively. Method: A retrospective study of 91 patients who received carboplatin containing regimen or concurrent chemotherapy of carboplatin during radiotherapy for at least three cycles. The data were collected from the medical record since January 2011 to January 2012 and evaluated by Naranjo’s algorithm. Result: Total adverse events were 465 events; hypersensitivity reaction grade 2 was found in 2 patients (0.43%). For the other adverse events of moderate to severity grade, the most common detected adverse events were hematological toxicity: anemia (3.66%), leukopenia (4.73%), neutropenia (9.03%) and thrombocytopenia (4.52%), followed by gastrointestinal toxicity: diarrhea (0.65%) and mucositis (0.43%), no adverse events of nausea, constipation, vomiting and peripheral neuropathy. The Naranjo’s score of carboplatin in the combination chemotherapy contain probable (87.53%), possible (31.61%), doubtful (0.65%) and definite (0.21%) respectively. Conclusion: Even hypersensitivity reaction was rare but patients who were treated with standard treatment and holding or decreasing the dosage had well tolerability. Hematological toxicity was the most common adverse events that could found from carboplatin containing regimen.

Keywords: carboplatin, retrospective study, adverse events, hypersensitivity, incidence and severity