

Incidence of palmar-plantar erythrodysesthesia in pretreated and untreated patients receiving pegylated liposomal doxorubicin

GianMaria Miolo¹, Paolo Baldo², Ettore Bidoli³, Davide Lombardi¹, Simona Scalone¹, Roberto Sorio¹, and Andrea Veronesi¹

¹Division of Medical Oncology C, ²Pharmacy Unit, and ³Epidemiology Unit, Centro di Riferimento Oncologico, National Cancer Institute, Aviano, Italy

ABSTRACT

Aims and background. Association between pegylated liposomal doxorubicin-based regimens and palmar-plantar erythrodysesthesia have just been emphasized, whereas the relationship between previous treatment and palmar-plantar erythrodysesthesia is still a matter of discussion. We evaluate the relationship between previous chemotherapy treatments and the development of palmar-plantar erythrodysesthesia in patients receiving pegylated liposomal doxorubicin-based regimens.

Methods. Between January 2005 and November 2006, 92 patients received regimens including pegylated liposomal doxorubicin. Patients were divided into three groups based on pegylated liposomal doxorubicin dosing interval length, different dose chosen, and previous chemotherapy.

Results. Among pretreated patients receiving regimens including 30 mg/m² of pegylated liposomal doxorubicin repeated every three weeks, the incidence of palmar-plantar erythrodysesthesia was not significantly higher than in untreated patients receiving the same weekly schedule ($P = 0.4$). There was no difference in the incidence of palmar-plantar erythrodysesthesia between pretreated patients with regimens including 30 mg/m² of pegylated liposomal doxorubicin every three weeks and pretreated patients receiving 20 mg/m² of pegylated liposomal doxorubicin every two weeks ($P = 0.8$). The prevalence of palmar-plantar erythrodysesthesia observed in the untreated group exposed to 30 mg/m² every three weeks was comparable to that of the pretreated group receiving 20 mg/m² biweekly ($P = 0.3$). However, excluding all the patients who developed grade 1 palmar-plantar erythrodysesthesia, the incidence of grade 2 and 3 palmar-plantar erythrodysesthesia observed in pretreated patients receiving regimens including 20 mg/m² of pegylated liposomal doxorubicin biweekly was significantly higher than in untreated patients receiving 30 mg/m² of pegylated liposomal doxorubicin every three weeks ($P = 0.001$).

Conclusions. Our findings indicate that the pretreatment is not involved in the increased incidence of any grade palmar-plantar erythrodysesthesia. On the contrary, the study could suggest that the type of previous treatment may be an important factor in the development of more severe forms of palmar-plantar erythrodysesthesia.

Key words: palmar-plantar erythrodysesthesia, skin toxicity.

Correspondence to: GianMaria Miolo, MD, Via F. Gallini 2, 33081 Aviano, Italy.

Tel +39-0434-659255;
fax +39-0434-659319;
e-mail gmiolo@libero.it

Received February 3, 2009;
accepted April 3, 2009.