

The positive effects of one hour intravenous administration of bortezomib on peripheral neuropathy in multiple myeloma patients

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Background: Bortezomib-induced peripheral neuropathy (BiPN) in multiple myeloma (MM) patients is a common and serious side effect. Currently, it has been reported that subcutaneous (SC) administration of bortezomib decreases the incidence of BiPN as compared to standard intravenous (IV) bolus injection without any differences in efficacy. However, there are reports of severe injection site reaction following SC administration of bortezomib. The aim of this study was to evaluate the response rate and incidence of BiPN following one-hour IV infusion of bortezomib. Methods: The data was retrospectively collected from MM patients who had been treated with IV administration of bortezomib for one hour. Results: Twenty-three patients were evaluated (median age 72 years, 13 males). The median number of treatment cycles was 5 (range 2 - 10). The cumulative bortezomib dose was 26.0 mg/m² (14.3 - 66.3) and percent of actual per expected cumulative dose was 90% (50 - 100). The overall response (complete response plus partial response) rate was 65%. The incidence of BiPN was 57% (n=13) and incidence of severe neuropathy was 4% (n=1). Conclusion: One-hour IV infusion of bortezomib was an effective regimen for MM with reduced incidence of severe BiPN. This route of administration of bortezomib could be an alternative mode of delivery for patients with severe injection site reactions following SC administration.