

Effects of targeted therapy of multiple myeloma according to the City Hematological Center of Novosibirsk

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Abstract

Aim: The aim of this research was to estimate the efficiency and toxicity of bortezomib in the treatment of patients with multiple myeloma (MM) as first-line and second-line therapies.

Methods: Fifty-five patients with MM were treated; the patients' median age was 66.3 years with a range of 38 to 87 years. Bortezomib was used as a second-line therapy in 41 patients with MM, who had earlier received at least 4 courses of therapy. All patients were tolerant to the last scheme of therapy. Bortezomib was applied in the form of monotherapy in a dose of 1.3 mg/m² in 21 patients (41.2%) and was also applied in combination to dexamethasone in a dose of 20 mg p.o. in 20 patients (39.2%). As a first-line therapy bortezomib has been appointed in combination with MP 10 (19.6%) by the patient. The response to bortezomib was evaluated according to the criteria of the European Group for Blood and Marrow Transplantation (EBMT). Adverse events were graded according to the National Cancer Institute Common Toxicity Criteria, version 3.0.

Results: The overall response rate to bortezomib as a second-line therapy was 76.5%: 15 patients (29.4%) had a complete response and near complete response (CR/nCR); 21 patients (41.2%), partial response (PR); and 3 patients (5.9%), minimal response (MR). The overall clinical response to bortezomib in firstline therapy was 80% (6 CR and 2 nCR). The most common adverse effects were neuropathy (58%), fever (25%), and asthenic syndrome (45%). Other frequent effects were: herpes Zoster (33% of cases), thrombocytopenia (45%), and anorexia (40%). All other adverse effects—such as a diarrhea and skin rashes—were documented in less than 10% of cases. The settlement median of the general survival rate was not reached, and the 5-year-old survival rate was 90%.

Conclusion: Bortezomib is a highly effective medical drug and plays an important role in the treatment of MM as a first and second-line therapy.

Keywords: multiple myeloma, bortezomib, adverse effects, chemotherapy