Tumori, 93: 409-416, 2007

LONG-TERM RESULTS OF A PHASE-I/II STUDY OF SEQUENTIAL HIGH-DOSE CHEMOTHERAPY WITH AUTOLOGOUS STEM CELL TRANSPLANTATION IN THE INITIAL TREATMENT OF AGGRESSIVE NON-HODGKIN'S LYMPHOMA

Anja Welt*[1], Philipp Schütt*[1], Cordula Derks[1], Peter Ebeling[1], Siemke Müller[1], Klaus Metz[2], Jürgen Anhuf[3], Thomas Moritz[1], Siegfried Seeber[1], and Mohammad Resa Nowrousian[1]

[1]Department of Internal Medicine (Cancer Research), West German Cancer Center, Essen; [2]Institute for Pathology, University of Essen Medical School, Essen; [3]Department of Internal Medicine, St. Johannes Hospital, Duisburg, Germany

Aims and background: **To improve the survival of patients with aggressive non-Hodgkin's lymphoma, we evaluated a risk-adapted therapeutic approach using high-dose (HD) or conventional-dose (CD) chemotherapy (CT) for poor-risk and good-risk patients, respectively.**
Methods: **Twenty patients were treated in each group. In both groups, the first chemotherapy cycle consisted of dexamethasone, vincristine, ifosfamide, and etoposide. Thereafter, the CD or HD patients received 3 or 2 cycles of dexamethasone, vincristine, epirubicin, and cyclophosphamide, respectively, followed by 1 cycle of dexamethasone, carboplatin, and etoposide. In the HD group cyclophosphamide, epirubicin, carboplatin, and etoposide were dose-escalated by a factor of 6, 3, 3, and 3, respectively, as compared to the CD group, and autologous peripheral blood stem cells were administered after each HD-CT cycle.**
Results: **Grade III-IV toxicities were neutropenia and thrombocytopenia (100%), anemia (55%), and stomatitis (30%) in patients with HD-CT, and neutropenia (90%) in patients with CD-CT. One toxic death occurred in a patient with HD-CT. The overall response rate was 100% in HD-CT patients, including 70% complete remissions, and 80% in CD-CT patients, including 60% complete remissions. The 10-year overall survival was 55% for patients with HD-CT and 80% for patients with CD-CT.**
Conclusions: **The risk-adapted treatment approach showed tolerable toxicities and was associated with encouraging results.**

Key words: aggressive non-Hodgkin's lymphoma, dose-intense, high-dose chemotherapy.

*These authors have contributed equally to this work.

Acknowledgments: We thank Mrs C Wartchow for her help in preparing the manuscript.

Correspondence to: Mohammad R Nowrousian, Department of Internal Medicine (Cancer Research), West German Cancer Center, University of Essen Medical School, Hufelandstrasse 55, 45122 Essen, Germany. Tel +49-201-7233127; fax +49-201-7235984;
e-mail: nowrousian@uni-essen.de

Received October 27, 2006; accepted March 2, 2007.