Autologous stem cell transplantation does not improve os in patients with follicular lymphoma

December 21 2011

High-dose chemotherapy and autologous stem cell transplantation (HDC-ASCT), for previously untreated patients with advanced follicular lymphoma (FL) does not improve overall survival compared with conventional-dose chemotherapy alone, according to an online study published December 21 in the *Journal of the National Cancer Institute*.

Follicular lymphoma is the most common sub-type of non-Hodgkin's lymphoma in North America, characterized by a long natural history, with multiple remissions and relapses following treatment. A number of chemotherapy regimens have been combined with ASCT in randomized clinical trials to treat follicular lymphoma, however, the effects of HDC-ASCT on event-free survival have varied.

In order to determine the impact of HDC-ASCT vs conventional-dose chemotherapy in adult patients with advanced follicular lymphoma, Murtadha Al Khabori in the Division of Medical Oncology and Hematology at Princess Margaret Hospital in Toronto, Ontario, and colleagues performed a systematic review and meta-analysis of randomized control trials comparing chemotherapy alone to chemotherapy with ASCT.

The researchers identified relevant studies dating from 1947-2009 in the literature and publicly available databases to look at overall survival, event-free survival, and any adverse events associated with treatment

from either conventional-dose chemotherapy or high dose-chemotherapy with ASCT.

Seven randomized clinical trials (RCTs) met the eligibility criteria. Of these seven, three showed moderate quality evidence that high-dose chemotherapy with ASCT did not improve the overall survival of adult follicular lymphoma patients. The four remaining RTCs highlighted low-quality evidence showing improvement in event-free survival for patients who received chemotherapy with ASCT. The absolute risk of death from treatment and adverse events did not vary between the two treatment groups.

The authors concluded that high-dose chemotherapy combined with ASCT did not improve overall survival in previously untreated adult patients with follicular lymphoma. However, the researchers note certain limitations of the study, namely that, "Trials with no statistically significant treatment effect or those that stopped early because of toxic effects in the ASCT arm are more likely not to be published." They add that data from the unpublished trials should be made available to better assess treatment effects and to develop future clinical trials. "Trials of ASCT in the context of current chemoimmunotherapy approaches in FL are needed to further evaluate the ability of intensification of therapy using ASCT to improve OS," the authors write.

In an accompanying editorial, Caron A. Jacobson and Dan L. Longo, M.D., at the Department of Medicine at Brigham and Women's Hospital in Boston, write that this meta-analysis is timely in light of recent data on the efficacy of maintenance rituximab, which when added to various chemotherapeutic regimens, has improved overall survival. Because of this, along with rituximab's low toxicity profile, Jacobson and Longo conclude, "We recommend rituximab maintenance therapy (in preference to HDC-ASCT) for patients achieving at least a partial response to first-line chemoimmunotherapy in the absence of any

randomized controlled trials comparing the two." Furthermore, "HDC-ASCT is a powerful treatment strategy for patients with follicular lymphoma, but one that does not appear to be less effective in the setting of the first disease relapse than in primary treatment, and thus can be reserved for the salvage setting."

Provided by Journal of the National Cancer Institute