Rituxan Prolongs HIV-Related Lymphoma Survival

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For people diagnosed with AIDS-related lymphomas, adding Rituxan (rituximab) to standard chemotherapy has a major positive effect on survival, according to new German cohort data published ahead of print by the journal AIDS. Importantly, the study found that Rituxan was beneficial in the setting of severe immune deficiency and that it was not associated with an increased risk of fatal infections.

The U.S. Food and Drug Administration initially approved Rituxan in 1997 to treat non-Hodgkin's lymphoma (NHL). It works by destroying both normal and cancerous B cells that have the CD20 molecule on their surface; therefore it's used to treat diseases characterized by having too many B cells, overactive B cells or dysfunctional B cells—such as NHL.

Rituxan, in combination with CHOP chemotherapy—a combination of cyclophosphamide, hydroxydaunorubicin, Oncovin (vincristine) and prednisone—has been proven superior to CHOP alone in the treatment of a variety of B-cell lymphomas in HIV-negative people. Its efficacy in people living with HIV, however, has a checkered history.

A randomized, placebo-controlled trial reported by the U.S. federally funded AIDS Malignancy Consortium in 2005 failed to find a statistically significant efficacy improvement among HIV-positive participants who received Rituxan plus CHOP, compared with those taking chemotherapy alone. In addition, that study found a significant increase in death due to infection, notably among those with low CD4 cell counts.

To further explore the potential benefits and risks of add-on Rituxan treatment, Christoph Wyen, MD, of the University of Cologne in Cologne, Germany, and his colleagues followed 156 people living with HIV treated for AIDS-related lymphoma at one of 25 clinics throughout Germany between 2005 and 2008. Roughly half of the patients were treated with Rituxan plus CHOP; the remaining participants received standard chemotherapy alone.

The overwhelming majority of cohort participants were men (92 percent), with an average CD4 count of 205 cells at the time of their lymphoma diagnosis. About 25 percent had a CD4 count below 100. Many patients had not received any antiretroviral (ARV) treatment before being told they had AIDS-related lymphoma.

Compared with those who received CHOP alone, overall survival was about 43 percent better for those who received Rituxan plus CHOP. In addition, Rituxan plus CHOP was associated with a 44 percent improvement in survival without signs of lymphoma progression.

To determine whether Rituxan increased the risk of infection-related fatalities, Wyen's group focused on the 61 patients who died during the study's average 15-month follow-up period. Twelve patients died of treatment-related infections, only three (25 percent) of whom were treated with Rituxan plus CHOP.

"[W]e did not observe an increased risk of fatal infections due to the use of rituximab in our cohort," the authors wrote. However, the patients who died from treatment-associated infections had lower CD4 cells than the entire group. These findings emphasize the need for prospective trials evaluating the benefits of intensified supportive care (such as using anti-infective agents or the growth hormone G-CSF).

Wyen's group noted that their study is not without limitations. "The uncontrolled design resulted in differences in baseline characteristics between patients with or without rituximab," they conclude. "Although only further and larger randomized clinical trials can prove the efficacy and safety of rituximab in this setting, our study strongly indicates a positive effect."
