

Cancer Advances: New Chemotherapy Regimen Means Long-Term, Disease-Free Survival for Burkitt's Patients

From the October 15, 2011 issue of the *Journal of Clinical Oncology*. According to a new study from the Cancer and Acute Leukemia Group B, brief, intense cycles of high-dose chemotherapy produced long-term, disease-free survival in more than half of patients treated for Burkitt's lymphoma and Burkitt's leukemia. Burkitt's lymphoma, also known as small noncleaved-cell lymphoma, is a fast-growing form of non-Hodgkins lymphoma (NHL) that most often occurs in young people aged 12-30 years. The most common sites of disease are the neck and digestive area. Burkitt's leukemia, also known as B-cell acute lymphocytic leukemia, is the rarest form of acute lymphocytic leukemia (ALL). This disease affects immature stem cells that have started to mature along the B-cell line of development. Burkitt's lymphoma and Burkitt's leukemia each occur in about 3 percent of adults diagnosed with NHL or ALL. This study represents an important treatment advance because patients with these two similar, highly aggressive cancers usually relapse after standard chemotherapy treatment. "Nearly 50 percent of patients with NHL or ALL who received aggressive chemotherapy enjoy prolonged survival more than five years after treatment," says the study's lead author, Edward J. Lee, MD, of Maryland Oncology, P.A. According to Charles A. Schiffer, MD, another study author from the Wayne State University School of Medicine in Detroit, "This is remarkable news for diseases generally considered to be fatal." The study included 54 patients in its final analysis. Of these 54 patients, 80 percent achieved a complete response, and 52 percent are disease free more than five years after treatment. Responses were similar in patients with either disease. Researchers note, however, that toxicity to the nervous system was substantial, and as a result, the regimen has since been modified. Of the 75 patients initially enrolled in the study, 10 patients developed significant damage to the nervous system after treatment. Ninety-three percent of patients experienced low white blood cell counts and 85 percent experienced a decrease in blood platelets. There were 32 deaths as a result of treatment and/or disease, including seven deaths due to treatment-related complications. Treatment was based on a regimen that has worked well in children with both cancers, producing almost an 80 percent long-term, event-free survival. All patients in the study were to receive seven cycles of chemotherapy that included an initial five day course, followed by alternating 5-day cycles of two different multi-drug regimens at 3-week intervals. Researchers found that younger patients in the study tolerated the regimen better than older patients. **What does this mean for patients?** Study results indicate that by administering short, intense cycles of high-dose chemotherapy, more than half of patients treated for Burkitt's lymphoma or Burkitt's leukemia were disease free more than five years after treatment. These study findings are important because patients with these diseases usually relapse after standard chemotherapy treatment. Patients with either Burkitt's lymphoma or Burkitt's leukemia should talk to their doctor about this treatment. Some patients, particularly those who are older, experienced side effects, including damage to the nervous system, low white blood cell counts, and a decrease in blood platelets.