Dose-Modified Oral Chemotherapy in the Treatment of AIDS-Related Non-Hodgkin's Lymphoma in East Africa


Abstract

Purpose Africa is burdened by the AIDS epidemic and attendant increase in HIV/AIDS-related malignancies. Pragmatic approaches to therapeutic intervention could be of great value. Dose-modified oral chemotherapy for AIDS-related non-Hodgkin's lymphoma is one such approach.

Patients and Methods The oral regimen consisted of lomustine 50 mg/m² on day 1 (cycle 1 only), etoposide 100 mg/m² on days 1 to 3, and cyclophosphamide/procarbazine 50 mg/m² each on days 22 to 26 at 6-week intervals (one cycle) for two total cycles in HIV-infected patients with biopsy-proven non-Hodgkin's lymphoma.

Results Forty-nine patients (21 in Uganda and 28 in Kenya) were treated. The majority of patients were female (59%) and had a poor performance status (63%); 69% of patients had advanced-stage disease; and 18 patients (37%) had access to antiretroviral therapy. In total, 79.5 cycles of therapy were administered. The regimen was well tolerated, had modest effects (decline) on CD4+ lymphocyte counts (P = .077), and had negligible effects on HIV-1 viral replication. Four febrile neutropenia episodes and three treatment-related deaths (6% mortality rate) occurred. The overall objective response rate was 78% (95% CI, 62% to 88%); median follow-up time was 8.2 months (range, 0.1 to 71 months); median event-free and overall survival times were 7.9 months (95% CI, 3.3 to 13.0 months) and 12.3 months (95% CI, 4.9 to 32.4 months), respectively; and 33% of patients survived 5 years.

Conclusion Dose-modified oral chemotherapy is efficacious, has comparable outcome to that in the United States in the pre–highly active antiretroviral therapy setting, has an acceptable safety profile, and is pragmatic in sub-Saharan Africa. The international collaboration has been highly successful, and subsequent projects should focus on strategies to optimize combination antiretroviral therapy and chemotherapy and follow-up tissue correlative studies.