BENEFICIAL EFFECTS OF A COMBINATION OF KOREAN RED GINSENG AND HIGHLY ACTIVE ANTIRETROVIRAL THERAPY IN HIV-1-INFECTED PATIENTS

Y. Cho¹, H. Sung², Y. Jung³

¹Microbiology, University of Ulsan, ²Laboratory Medicine, ³Microbiology, University of Ulsan College of Medicine, Seoul, South Korea

Introduction: While highly active antiretroviral therapy (HAART) suppresses replication of HIV-1, its effectiveness is often limited by the emergence of antiretroviral drug-resistant mutants. Korean red ginseng (KRG) has been used singly or together with AZT for HIV-1-infected patients since late 1991 as an alternative medicine. Several beneficial effects have been reported. Surprisingly, the frequency of genetic defects of HIV-1 appears dependent on the level of KRG intake. Thus, we could maintain CD4 T cell in long-term survivors for more than 20 years in the absence of antiviral therapy.

Aim: To determine whether KRG has beneficial effects on HIV-1-infected patients administered highly active antiretroviral therapy (HAART).

Methods: We analyzed the CD4 T cell count, viral load, and resistance mutations to HAART in 46 individuals. Thirteen patients harbored resistance mutations at baseline. The study population was divided into two groups, specifically, a combination of HAART plus KRG (n=23) and HAART alone (n=23).

Results: The annual increase in CD4 T cell count in the combination group was significantly higher than that in the HAART alone group (P < 0.05). Overall, 21 patients harbored resistance mutations after 3 years of therapy. Following exclusion of 13 patients displaying baseline resistance mutations, 7.1% of patients (1/14) in the combination group and 42.1% (8/19) in the HAART group were identified with resistance mutations. One patient with baseline resistance mutations in the combination group did not display resistance mutations 3 years after HAART therapy. High-level resistance mutations were significantly lower in the combination group than those in HAART alone. Five patients showed no improvement in viral copy number (26.3%, 5/19) in the combination group and 9 (45.0%, 9/20) in the HAART only group.

Conclusion: Our data support the clinical utility of KRG intake during HAART therapy.