HIV-Related Fatigue and Hyperbaric Oxygen Therapy

Reillo, M, R.N., B.S.N., Myers, R., M.D., HBO Staff, MIEMSS, Baltimore, Maryland, USA

Objectives:
Hyperbaric Oxygen Therapy (HBO) is being evaluated to determine the effectiveness in relieving HIV-related fatigue and determine the clinical and immunological effects on HIV-infected individuals.

Methods:
Twenty-five patients have been enrolled over a two-year period. Admission criteria include chief complaint of fatigue, seropositivity as confirmed by ELISA and Western Blot for HIV infection, 500 CD4 cells or less, and absence of active opportunistic infections which might compromise pulmonary or neurologic function. Twenty patients received 2 ATA, for 90 minutes, three times per week.

Five patients voluntarily received surface air at the same parameters to control for a placebo effect, and then received 100% oxygen; all patients were treated simultaneously in the HBO chamber. Withdrawal of HBO therapy for one month was completed for 21 patients, secondary to chamber construction. Laboratory, clinical assessment, and Karnofsky Performance Scores were completed monthly on all patients.

Results:
All patients indicated relief of debilitating fatigue within two weeks. Karnofsky Scores improved 10% to 30% within one month. Weights for all patients remained stable or increased; CD4, Hemoglobin, and Hematocrit counts remained stable and/or increased.

Tumor Necrosis Factor decreased in 13 patients. P-24 antigens remained non-reactive or decreased if reactive. Withdrawal of therapy for one month secondary to new chamber construction for all but four patients correlated with return of baseline fatigue levels.

Additionally, two patients developed PCP and were treated outpatient with dapsone and HBO via monoplace chamber.

One patient developed herpes zoster and was treated with zovirax and HBO via monoplace chamber. After resuming HBO therapy, all remaining patients returned to their six-month Karnofsky Score, which indicated significant improvement in their fatigue levels.
Twenty-three of the twenty-five patients have shown no clinical disease progression; 80% of patients enrolled in the study have 50 CD4 cells or less.

Further, HBO appeared to relieve pain associated with peripheral neuropathy in two patients and was a beneficial adjunct to the treatment of mild PCP; the investigators have established protocols to further investigate these findings.

Conclusion:

The study is ongoing. HBO appears to be effective in relieving HIV-related fatigue and improving the quality of life of individuals with HIV/AIDS.

Preliminary research indicates a probable correlation with an increase in length of employment capability, delayed disability requirement, and reduction in number and length of hospitalizations by incorporating HBO as a component in the medical management of HIV disease.

The investigators believe HBO may relieve fatigue by inhibiting the activity of certain cytokines, enhancing red blood cell production, and enhancing the ability of HIV-impaired monocytes to absorb and utilize oxygen.

The Center for Advancement of Hyperbaric Medicine is a Washington corporation and has filed for IRS non-profit status as a 501©(3) organization. CAHM’s goals are:

1. To promote the acceptance and broadest appropriate application of hyperbaric oxygen therapy in the professional medical community.

2. To research and promote the research of promising applications of hyperbaric oxygen therapy in a manner that will insure its highest professional recognition and acceptance.

3. To collect, organize and disseminate all available information about hyperbaric oxygen therapy to insure its most knowledgeable application and implementation.

4. To discover, research, develop and introduce new medical applications for hyperbaric oxygen therapy.

5. To distinguish inappropriate, ineffective or fraudulent application of hyperbaric oxygen therapy and to discourage their practice.
Hyperbaric oxygen therapy consists of sitting in a closed chamber in which the pressure is elevated to twice that at sea level (14.7 PSI x 2 = 29.4 PSI ‘pounds per square inch’), and then breathing pure oxygen (while in the chamber).

The typical course of treatment is about 90 minutes two to three times per week. This therapy is an established therapy for 13 recognized conditions and experimental in many others. It is practiced in hospitals throughout the United States and the world.

The Center for Advancement of Hyperbaric Medicine can provide treatment on your physician's prescription. This is *NOT A COMMERCIAL VENTURE* the application to AIDS/HIV is experimental and investigatory in nature.