

Rapid Recovery Hyperbarics

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EFFECT OF HYPERBARIC OXYGEN THERAPY ON HIV VIRAL LOAD AND HIV-ASSOCIATED SUBJECTIVE SYMPTOMS

Hyperbaric oxygen therapy (HBOT) has been suggested to have an antiviral effect as well as to improve symptoms such as fatigue and appetite in HIV patients. However, controlled data is not currently available to support these claims. We report a case of an HIV positive patient who received a course of HBOT for a standard indication and who experienced a notable decrease in viral load but no significant change in clinical symptoms during treatment. **CASE REPORT:** A 38-year-old male with AIDS was treated with HBOT for a lower extremity wound. He underwent 32 HBOT at 2.5 ATA for 90 minutes. HBOT initiation: WBC 10.5, CD4/CD3 17, quantitative HIV 63,319. HBOT midpoint: WBC 4.4, CD4/CD3 undetectable, quantitative HIV 48,481. HBOT completion: WBC 8.0, CD4/CD3 undetectable, quantitative HIV 9,768. The patient completed daily subjective assessments utilizing a visual analog scale to quantify fatigue, weakness, appetite, happiness, pain, sleep, and energy level. No significant change in any of these symptoms was noted during HBOT.

CONCLUSIONS:

Controversy exists as to whether the oxidative state in HIV patients results from the virus itself and contributes to viral replication and reactivation, or whether it results from the body's defense against the virus and is beneficial in fighting HIV. Antiviral effects of oxygen radicals on lipid-enveloped viruses, like HIV, have been documented. Some authors claim HBOT can reduce viral loads and improve subjective symptoms, possibly through this induction of an oxidative stress. However, to date there are no controlled studies evaluating these claims. Our patient showed a decrease in viral load but no increase in CD4 count and no improvement in subjective symptoms during treatment with HBOT. This case demonstrates the need for controlled clinical trials to evaluate whether HBOT may provide some benefit in combating the symptoms associated with HIV infection or the virus itself.