Hyperbaric Oxygen as a Therapy of Bell's Palsy

Department of Otolaryngology, Department of Pulmonary Diseases, Department of Ophthalmology, University of Zagreb School of Medicine and Naval Medical Institute, Croatia

Racic G, Denoble PJ, Sprem N, Bojic L, Bota B.


The purpose of this study was to compare the therapeutic effects of hyperbaric oxygen (HBO₂) to the effects of prednisone treatment in 79 subjects with Bell's palsy. Patients were randomly assigned either to the HBO₂-treated group (n=42) or to the prednisone-treated group (n=37). The HBO₂ group was exposed to 2.8 atm abs of 100% oxygen for 60 min, twice a day, 5 days a week and was given a placebo orally. The prednisone group was exposed to 2.8 atm abs of 7% O₂ (equivalent to 21% O₂ in air at normal pressure) following the same schedule as the HBO₂ group; prednisone was given orally (total of 450 mg in 8 days). Subjects from both groups were treated in the hyperbaric chamber for up to 30 sessions or to complete recovery, and were followed up for 9 mo. At the end of the follow-up period, 95.2% of subjects treated with HBO₂, and 75.7% of subjects treated with prednisone recovered completely. The average time to complete the recovery in the HBO₂ group was 22 days as opposed to 34.4 days in the control group (P<0.001). In the HBO₂-treated group, at the beginning, the altered nerve excitability test (NET) was abnormal in five subjects; three of them had normal NET by the end of the follow-up period. In the prednisone group the NET was abnormal in nine subjects at the beginning and they had not recovered by the end of the follow-up (P<0.05). Our results suggest that HBO₂ is more effective than prednisone in treatment of Bell's Palsy.

Copyright © 1997 Undersea and Hyperbaric Medical Society, Inc.