Hyperbaric Oxygen as a Therapy of Bell's Palsy

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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.

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