

## **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 (HBO<sub>2</sub>) to the effects of prednisone treatment in 79 subjects with Bell's palsy. Patients were randomly assigned either to the HBO<sub>2</sub>-treated group (n=42) or to the prednisone-treated group (n=37). The HBO<sub>2</sub> 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% O<sub>2</sub> (equivalent to 21% O<sub>2</sub> in air at normal pressure) following the same schedule as the HBO<sub>2</sub> 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 HBO<sub>2</sub>, and 75.7% of subjects treated with prednisone recovered completely. The average time to complete the recovery in the HBO<sub>2</sub> group was 22 days as opposed to 34.4 days in the control group (P<0.001). In the HBO<sub>2</sub>-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 HBO<sub>2</sub> is more effective than prednisone in treatment of Bell's Palsy.

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