

## ***Bell's Palsy (Facial Palsy)***

Bell's Palsy is unilateral (one-sided) facial paralysis of sudden onset. The cause is not known, but there is disturbance of the facial nerve with swelling during its course in the facial canal leading to compression and ischemia of the nerve. It resolves spontaneously in 70 - 80 percent of cases, but the recovery may be prolonged and residual disability and disfigurement may persist. Treatments used include corticosteroids and surgical decompression of the facial nerve.

Treatment of Bell's palsy remains controversial. Surgical decompression has not produced any better outcome than spontaneous resolution of the palsy. Several prospective and retrospective studies suggest strongly that corticosteroids are beneficial but no definitive study has been done to prove the value of corticosteroids.

Litavrin et al (1985) reported on HBO as a part of multimodal therapy for Bell's palsy in 42 patients. A further 29 patients with a similar clinical picture were treated by conventional methods and served as controls. The authors concluded that the addition of HBO to other methods increases the efficacy of the treatment, and reduces the period needed for restoration of the function of the damaged nerve.

Nakata(1986) treated 66 patients with Bell's palsy using HBO. In 54 patients for whom the treatment was started within 2 weeks after onset, 45 (83%) recovered completely, 7 recovered partially and 2 did not recover. All the patients whose EMG showed evidence of neuropraxia recovered completely. Those with incomplete denervation also recovered, but their recovery period was much longer. This pattern of recovery is better than could be predicted from the natural history of the disease, or as a result of other treatments such as steroids and surgical decompression.

Racic et al (1997) compared the therapeutic effects of HBO with those of prednisone treatment in 79 patients with Bell's palsy who were randomly assigned either to the HBO treated group (n=42) or to the prednisone treated group (n=37). The HBO group was exposed to 2.8 ata 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 ata 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 group; prednisone was given orally (total of 450mg 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 months. At the end of the follow-up period, 95.2% of subjects treated with HBO and 75.7% of subjects treated with prednisone recovered completely. The average time to complete the recovery in the HBO group was 22 days as compared to 34.4 days in the control group (p<0.001). These results suggest that HBO is more effective than prednisone in treatment of Bell's palsy.

These statistics are from the Textbook of Hyperbaric Medicine by K. K. Jain, 3rd Revised Edition.

HBO has been proven effective in the treatment of Bell's palsy and in conjunction with other treatments, helps to prevent permanent facial disfigurement.

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