Medical Studies/Resources

Stroke

Jain, K.K. MD. Textbook of Hyperbaric Medicine, Third Edition. Chapter 17: Role of HBO in the Management of Stroke." Hogrefe & Huber Publishers: Kirkland, Washington, 1999. Pp 227-252.

Abstract: For many Stroke patients there is often little or no improvement with conventional medical management and physical therapy. Therefore, HBO should be started in the acute phase of a stroke **as** an adjunct to conventional medical management. Animal studies and uncontrolled human trials have shown the effectiveness and safety of HBO after stroke.

Evaluation of patients during an HBO session has revealed response rates of 100% (improvement of spasticity or motor power or both). Improvement may be initially transient **but can** be maintained following daily treatments 1.5 ATA for 4,5 minutes for 6 weeks:

Neubauer, *R.A.* et al. " HBO and Imaging Techniques in Diagnosis and Therapy of Stroke. Does the Ischemic Penumbra Alter the Outcome in Stroke?" International Symposium: Neuropsychomotor, Neuro-Pharmacological, Psychosocial and Ethical Aspects, Oct 7-11, 1992

Abstract: Recovery of stroke is more related to the oxygen content than to blood flow. **SPECT** can demonstrate ischemic penumbras. SPECT were taken before and after treatment. The treatment protocol was HBO at 1.5 ATA for 60 minutes.

There were 15 post stroke patients. The time elapsed since the stroke ranged from 6 hour to 15 years.

Significant and marked changes in flow and metabolism were observed in ALL 15 patients.

Reversibility of the Chronic Post-Stroke State STROKE, 1976; 7(3): 296-300

Abstract: 40 stroke patients were observed and treated with HBO therapy: Twenty of the patients were early post-stroke stage and 20 were chronic,
HBO therapy was administered and EEG analysis and neurological assessment taken after the completion of the treatment. The treatment results were as follows:

27% considerable / dramatic improvement
53% moderate improvement
20% no change

In conclusion it was determined that more than 75% benefited and more than 25% improved close to normal function