

Paris EFNS Meeting 2004

The Positive effects of HBO on Brain Injuries

Paper One

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Hyperbaric Oxygenation in Acute Ischemic Thrombotic Stroke

Background

Recently the University of Oregon performed a meta analysis of the use of hyperbaric oxygenation in the Ischemic thrombotic stroke. The conclusion was further work needed to be done.

Materials and Methods

In 1980 the late Edgar End and I published 116 cases of ischemic thrombotic stroke treated with hyperbaric oxygenation. 25 % of these patients were seen and treated within the first four hours. The protocol used was early intervention and pressure of 1.5ATA (the title read 1.5 -2ATA, as Dr. End was using a multi placed chamber with a mask and a equivalent PA O₂ of 1.5ATA). Those treated within the first 4 hours were treated every six hours around the clock for 24 hours and then were discharged to continue hyperbaric oxygenation, PT, OT and speech therapy on an out patient basis. The average stroke number of treatments was approximately 20 +.

Discussion

If substantiated and reduced, reduction of morbidity, mortality and cost effectiveness would be in the billions of dollars. The analysis of all the cases treated from the days of Ledingham and Hayman Saltzman in the sixties, within the first four hours showed a 90% complete recovery rate. The meta analysis of over 1000 cases of stroke literature failed to note the degree of stroke, the time of intervention, the pressures ATA , the total number of treatments and lacked any of the current imaging modalities which are now available. A specific project is being proposed under Dr. James Toole with Dr. Gerstenbrand as medical advisor at the University Hospital Bowman Grey Medical School in Winston Salem, North Carolina for the use of intervention functional imaging and four hour HBO with 1.5ATA pressure.

Conclusion

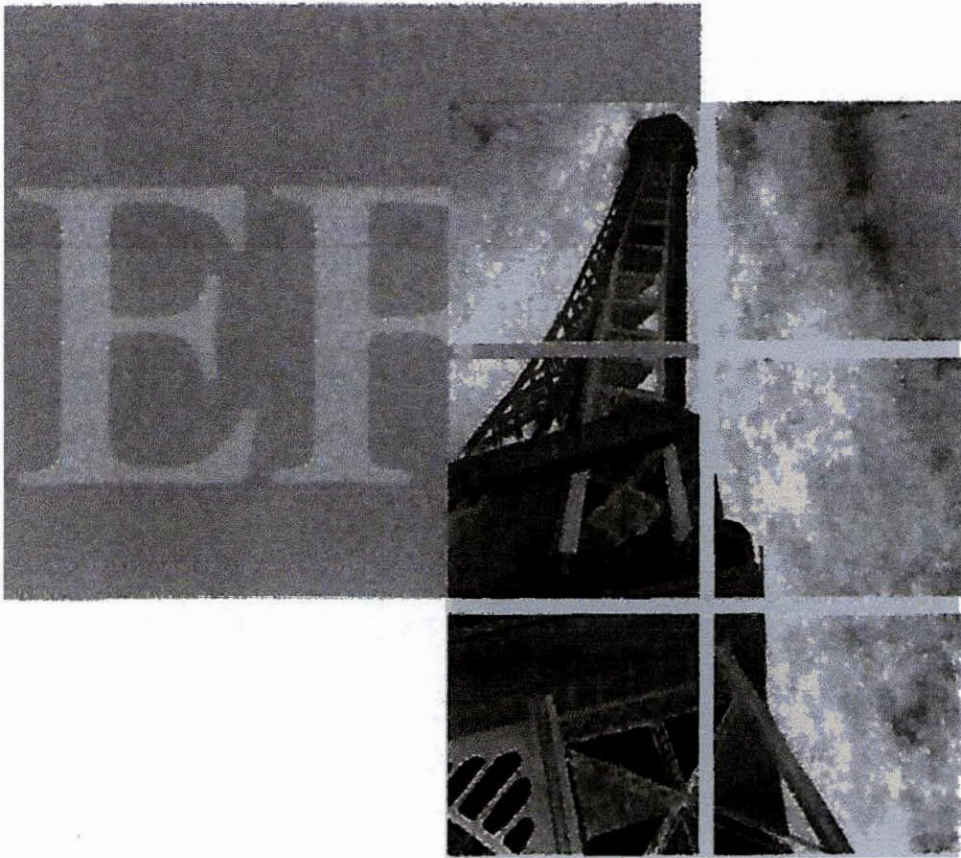
The Ischemic cascade lasts anywhere from two minutes to four hours and is at this time the effect of hyperbaric oxygenation or any other modality should be most effective. When reading articles one must be very aware of patient selection, total number of treatments and certain of these cases were 19 hours to days later rather than within the four hour period with a totally inappropriate protocol.



European Federation of Neurological Societies

8th CONGRESS OF THE
EUROPEAN FEDERATION OF
NEUROLOGICAL SOCIETIES

EFNS 2004



September 4 - 7, 2004