Anti-Aging Properties of Hyperbaric Oxygenation

By R.A. Neubauer, M.D. Medical Director, Ocean Hyperbaric Neurologic Center Lauderdale-by-the-Sea, Florida

BACKGROUND

On the phylogenetic scale, all mammals live to be 7 times their age of skeletal maturity. Man's age of skeletal maturity is 20 years. In biblical times Methuselah lived to be 900 years of age. (Either related to the method of time measurement or a possible higher concentration of oxygen in the atmosphere before man's destruction of the environment occurred.) Striving for longevity and immortality has been mans quest since being on this planet. The Pharaohs at the time of building of the pyramids (3000BC) not only wanted longevity but also immortality. All types of drugs, herbal preparations, hormones, surgical procedures, hypnotic trances, religious experience, and cult transformations have been tried to extend man's longevity. It is the purpose of this paper to expand upon a change of pressurized environment affecting not only man's longevity but also the quality of life. Frequently it may not be how long one lives but how. Along with degenerative joint, cardiovascular and metabolic diseases, the most common stigma of aging is that of early to severe memory loss to advanced Alzheimer's disease.

MATERIALS AND METHODS

At the Ocean Hyperbaric Neurologic Center, over the years, we have studied many such cases ranging from mild memory loss to severe mental impairment requiring 24 hour daycare. Functional Brain Imaging SPECT scans have been performed on a number of such patients and it has been found that certain areas of the brain are hypometabolic for oxygen, frequently due to small vessel disease. With the administration of hyperbaric oxygenation at 1.5 ATA, one hour, 20-60 treatments, (oxygen is a pharmaceutical under pressure and has properties which no drug possesses), these areas of dormant idling neurons are reactivated. All modalities of PT, speech, herbal medication and nutritional counseling, neuro-feedback are part of the rehabilitation program especially in the neurocognitive deficits of stroke and traumatic brain injury.

RESULTS

The interesting phenomenon is that the patient will frequently mentally sharpen, brighten and do well after a series of treatments with positive results but may only last a number of weeks. Because of the problem in the vascular supply (small vessel disease) the situation will be recurrent and the patients need to seek intermittent hyperbaric oxygenation treatments.

CONCLUSION

In the 1800's pressurized air spas were the rage throughout Europe and apparently the pressurized air environment has a positive effect on humans. The outstanding work of the late Orville Cunningham, M.D. using compressed air must not be overlooked. A newer portable air chamber is now available which is reported to have a scientific effect on anti-aging and apoptosis along with positive changes in SPECT scanning. When hyperbaria (that is pressurized air) is used at 1.35 ATA, one hour, the oxygen content is raised from 19 to 27%. Certain centers are using an oxygen concentrator with 1.35 ATA air which will increase the total oxygen in the chamber to 70%. Other Centers are using a mask with 100% oxygen, thus actually not only reaching but over-reaching the Russian data of 1.1 ATA for neurologic conditions. The pressurized environment of air and 100% oxygen at various atmospheric pressures need further investigation especially in the field of neurology.