Deafness References

Hyperbaric oxygen as a method of therapy of sudden sensorineural hearing loss.

Racic G, Petri NM, Andric D.

Clinical Hospital Split, Croatia, Department of ENT. racic@doc.kbsplit.hr

Sudden hearing loss is a sensorineural hearing impairment, which develops over a period of few hours to a few days. Several theories have been proposed regarding the development of sudden sensorineural hearing loss. The incidence of sudden sensorineural hearing loss has been reported to range from 5 to 20 per 100,000 persons per year. Hearing loss is treated with drugs that provide better blood supply to the inner ear and decrease inflammation. The aim of this study is to examine the influence of hyperbaric oxygen therapy in treating sudden sensorineural hearing loss. The beneficial effects of HBO2 on sudden sensorineural hearing loss are probably achieved by an increase in the distribution of O2 dissolved per volume unit of blood circulating trough the regions affected by the lack of oxygen. Sessions were performed on 17 patients, with sudden sensorineural hearing loss that began within 10 days prior to the tests. In the hyperbaric chamber, all patients breathed 100% oxygen at 2.8 bars, for 60 minutes twice a day, either until recovered or for a maximum of 30 sessions. Of the total number of study participants, 12 were male and 5 were female, and their average age was 35.3 years (range: 18 to 68). Before the therapy, an average hearing value was obtained out of five basic frequencies. Hearing was found to be in the range of 61-93 dB in 12 patients, while 5 patients had hearing in the range of 41-60 dB. Following therapy with hyperbaric oxygen, the hearing level of 14 patients was within the range of 0-26 dB, two patients' hearing level increased to 27-40 dB, and one patient’s hearing level remained in the range of 41-60 dB. The average hearing level for all patients and for all five basic frequencies was 67.8 dB before therapy, in comparison with 21.6 dB after oxygen therapy (p=0.0003). The average number of sessions in the hyperbaric chamber was 11.9 (range: 5 to 20). The therapy was taken well by all patients. The results of this study, as well as the results of similar studies performed by other authors, indicated the necessity of performing an additional prospective, random, double-blind study of the effects of hyperbaric oxygen therapy on sudden sensorineural hearing loss, on a large number of patients.

Legal Disclaimer

The content and information provided within this site is for informational and educational purposes only. Consult a doctor before pursuing any form of therapy, including Hyperbaric Oxygen Therapy. The information provided within this site is not to be considered Medical Advice. In Full Support of the F.D.A., Hyperbaric Oxygen Therapy is considered Investigational, Experimental, or Off Label. Please consult with your Treating Medical Physician.