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HBOT for glaucoma?
The consequences of glaucoma can be damage to the optic nerve, which can eventually cause blindness.

Glaucoma is defined on the Mayo Clinic website as not just one eye disease, but a group of eye conditions resulting in optic nerve damage, which may cause loss of vision. Abnormally high pressure inside your eye (intraocular pressure) usually, but not always, causes this damage.

Glaucoma is one of the leading causes of blindness in the United States. Glaucoma can damage your vision so gradually you may not notice any loss of vision until the disease is at an advanced stage. The most common type of glaucoma, primary open-angle glaucoma, has no noticeable signs or symptoms except gradual vision loss.

Early diagnosis and treatment can minimize or prevent optic nerve damage and limit glaucoma-related vision loss. It's important to get your eyes examined regularly, and make sure your eye doctor measures your intraocular pressure.

Three separate studies were conducted on hyperbaric oxygen therapy and how it could aid those suffering from glaucoma, all published on the PubMed website.

Croatian studies

The subjects of a study, performed in Split, Croatia, were 111 patients with open angle glaucoma who were submitted to treatment by hyperbaric oxygenation. Two groups were formed at random, an experimental one of 91 patients and a control group of 20 patients. The experimental group consisted of four subgroups classified according to the course of treatment they received: 30 sessions (31 patients), 20 sessions (20 patients), 15 sessions (20 patients) and 10 sessions (20 patients). For the treatment a large walk-in recompression chamber was utilized, once a day, at a pressure of 2.0 bars, for 90 minutes. Visual acuity and mean intraocular pressure values taken before and after hyperbaric oxygen treatment did not show a statistically significant difference either between the treated and control subjects, or at control examinations after three and six months.

During the follow-up period, changes in the visual field area in control subjects were discrete and statistically not significant. At the same time the visual field values increased after the therapy in all the subgroups. In the 10-session course subgroup the increase was not statistically significant. In all other subgroups, statistical significance was at the level of $P < 0.01$. Control after three months demonstrated the same level of statistical significance; control at the end of six months failed to show a statistically significant difference. The 20-session course is recommended for initial treatment. When visual field values return to 50 percent of the improved values achieved during initial treatment, it is suggested that hyperbaric oxygen treatment be repeated.

In another study in the same hospital they followed the hypothesis that chronic ischemia is the main cause of functional deficiency in glaucoma and carried out a double blind clinical experiment to study the effect of hyperbaric oxygenation in 51 glaucoma subjects, of which 31 were in the experimental group and 20 in the control group. In the experimental group there was a significant improvement of visual fields, whereas there was no change in the subjects in the control group. Hyperbaric oxygen did not have any influence on intraocular pressure. The achieved visual field improvements remained stable for 3 months, except for I3 and I4 isopters of the left eye and I4 isopter of the right eye, while they were considerably reduced after 6 months.

Russian study

Thirty-five patients (64 eyes) with primary open-angle glaucoma were treated by hyperbaric oxygenation combined with antioxidants. Repeated courses were administered during 5 years. Stabilization of the visual function was attained in 80% patients. Follow-up of controls (34 patients-66 eyes) showed stabilization of the visual function in but 35% cases.

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