The long term results of hyperbaric oxygen treatment for macular edema with retinal vein occlusion

[Article in Japanese]

Miyamoto H, Ogura Y, Wakano Y, Honda Y.

Source

Department of Ophthalmology, Faculty of Medicine, Kyoto University, Japan.

Abstract

We retrospectively evaluated the effect of hyperbaric oxygen treatment on seventy-nine eyes of seventy cases with cystoid macular edema secondary to retinal vein occlusion. Twenty-three eyes had central retinal vein occlusion (CRVO), and fifty-six eyes had branch retinal vein occlusion (BRVO). Visual acuity improved by two lines or more in 40 eyes (17%) with BRVO, and in 10 eyes (44%) with CRVO immediately after the therapy. Six months or more after treatment, visual improvement persisted in 14 of 30 BRVO eyes (47%), and in only one of 11 CRVO eyes (9%). CRVO showed poor prognosis in the long term compared with BRVO. We speculated that activation of aerobic metabolism might be more important than reduction of vascular hyperpermeability as the therapeutic effect of hyperbaric oxygen, and that hyperbaric oxygen might mainly affect the retinal cells in the marginal zone of the ischemic retina in the macular region.