

Currently, the most common form of late-stage AMD, choroidal neovascularization (CNV), responds to treatment with anti-VEGF therapies. Although visual loss is modified in a portion of these cases, no therapeutic approach exists that alters the evolution from early to late disease^{Bird Kaszubski}. Blood flow to the eye is complex; the retinal vasculature supplies only the inner retinal layers, while the choroidal vascular bed supplies the outer 130 μm ^{Wangsa-Wirawan}. This divergence is important in the normal eye and also affects how the eye responds to pathological states^{Kaszubski}.

Several pathological factors are thought to be involved in CNV, but the proximate cause has not been defined. While several hypotheses have support, RPE damage with degenerative changes of the choroidal vasculature consequent to ischemia is the one addressed. It is known that chronic, non-healing wounds are also characterized by a penumbra of A-V shunting neovascularization^{Guthrie} and local hypoxia. In such arrested wounds, 40 sessions with hyperbaric oxygen corrects this microvascular abnormality and the associated wound bed hypoxia.

Two observational studies chronicling the benefits of HBO in AMD have been published. The patients treated were few in number (16 patients and 7 patients) but the two primary outcomes Visual acuity^{Weiss#1} and Central retinal thickness^{Malerbi} were improved in 75% Of the Cases.