

Our current multitasking approach to BRVO and CRVO

Authors: Vincenzo Ferrara, G. Macrì, Vito Belloli, Arona, Italy

Advantages:

Macular dysfunction occurs in almost all eyes with central retinal vein occlusion (CRVO) and branch retinal vein occlusions (BRVO) presenting a persistent macular edema, nonperfusion of the parafoveal capillaries, and damage to the retinal pigment epithelium caused by extensive hemorrhage. Actually we have many tools to contrast these clinical entities but none is applicable with the same success rate to all the different forms encountered.

Methods:

Patients are selected for different treatments on the basis of time from onset, visual acuity, retinal surface and local vascular balance. At first visit, surgery is excluded for cases older than 6 months from onset and for cases with visual acuity higher than 20\40, while Anti-Vegf is injected into the vitreous for significant macular edema in order to avoid prolonged sufferance of the neurosensorial retina. Subsequently laser treatment is applied for achieving stabilization of the macular resolution or ablation of ischaemic retina.

Effectiveness:

As a vascular permeability factor VEGF induces vascular fenestration as well as an increase in permeability of microvessels leading to the deposition of proteins in the interstitium promoting angiogenesis and macular edema. Thus one possible strategy for treating retinal neovascularization, and macular edema following retinal venous occlusions is to inhibit VEGF activity. It can be obtained by competitively binding VEGF with a specific neutralizing anti-VEGF antibody or by surgically removing the same from the retinal surface by vitrectomy and surface peeling. Safety: Safety is related to the proper application of each single procedure, chosen among those discussed and currently on-label.

Take home message:

A disease that has no treatment has many treatments.