

Branch Retinal Vein Occlusion

WHAT IS IT?

Arteries carry blood from the heart to various body parts and veins return it. The retina has one major artery and one major vein, which is called the central retinal vein. Sometimes branches of this vein can be blocked. This is called **BRANCH RETINAL VEIN OCCLUSION**.

WHAT CAUSES IT?

In most cases an underlying cause is not found, and we never know why it happens. It is more common in patients with high blood pressure and arteriosclerosis than it is in other people.

WHY DOES IT CAUSE DECREASED VISION?

When the vein is blocked, the circulation through the affected vein is reduced or stopped. When this happens, there is back-up of the blood and some degree of blood and associated fluid spilling out into the retina. When there is excessive fluid build-up in the center of the retina (macula), there can be decreased visual acuity from **MACULAR EDEMA**.

WHAT IS LIKELY TO BE THE VISUAL OUTCOME?

About one-quarter of patients have spontaneous improvement in vision, but in others, the vision remains decreased or even worsens. The ultimate visual outcome cannot be predicted for anyone.

WHAT CAN BE DONE TO IMPROVE VISION?

The only known way to improve vision is to treat the **macular edema**. Treatment options proven to be effective in reducing edema and improving vision to some degree include medicines injected into the eye such as **VEGF blockers (Lucentis, Eylea, and Avastin)** or steroids (**Triamcinolone/Triesence and Ozurdex**) and **laser**. Sometimes there is too much hemorrhage in the retina to laser and several months may be necessary for the hemorrhage to spontaneously clear before laser can be considered.

WHAT RESULTS CAN I EXPECT WITH TREATMENT?

Most patients have a small improvement in vision. A small minority have improvement to near normal. In **some** the vision is not helped at all. It usually takes several months before any improvement in vision will be detectable.

OTHER PROBLEMS RELATED TO BRANCH RETINAL VEIN OCCLUSION?

Some patients months or years after a branch retinal vein occlusion will develop an abnormal growth of fragile new blood vessels on the surface of the retina. These blood vessels generally do not have any associated symptoms unless they should rupture and bleed. In general this rupture is spontaneous, and if there is a significant amount of hemorrhage into the vitreous cavity of the eye, the vision can be quite dramatically reduced. When this occurs the blood usually clears spontaneously, although this can take weeks or months. In those patients who develop these fragile abnormal new blood vessels we generally want to apply laser treatment to minimize the risk of bleeding. This laser does not guarantee that there will be no future hemorrhaging, but it does significantly lower this risk. Occasionally if there is a very large hemorrhage then surgery to remove the blood in the vitreous cavity (**vitrectomy**) may be appropriate.

ARE THERE ANY RESTRICTIONS OR PRECAUTIONS?

There is no reason to limit one's activities, to avoid reading, to avoid watching TV, etc. However, when one has blurred vision in one eye for any reason, one's depth perception is hampered. To the degree that this is true, one should be careful doing anything which requires the ability to judge distances such as working around machinery, climbing on ladders and scaffolds, pounding nails, pouring hot liquids, and driving. It is relatively uncommon for a similar process to affect the other eye, and blurry vision in one eye does not in any way harm the "good" eye.

WHY SHOULD A PATIENT COME BACK BEFORE HIS/HER SCHEDULED APPOINTMENT?

A patient should come back sooner than scheduled if there is a marked decrease in vision or if the eye becomes painful.