

Retinal vein occlusion (RVO)

Retinal vein occlusion (RVO) is a common vascular disorder of the retina. It is the second retinal vascular cause of vision loss worldwide after diabetic retinopathy.

The main cause is a blockage in the venous retinal circulation with secondary increase of the blood pressure, hemorrhage and fluid leakage. Retinal ischemia induces local neovascularization, vitreous haemorrhage, neovascular glaucoma.

Occlusion of the vein may be located at the level of the optic (central retinal vein occlusion-CRVO) or in a branch of the retinal vein (branch retinal vein occlusion-BRVO) with different clinical presentation and management.

RVO is divided in non-ischemic and ischemic form. The ischemic type can be associated with macular oedema and retinal neovascularization that causes blindness.

The most important risk factors for RVO are: general vascular disease, increasing age, smoking, obesity and blood disorders.

Patients with RVO must undergo complete ophthalmological examination with measurements of the visual acuity, intraocular pressure, slit-lamp exam, indirect ophthalmoscopy with dilated pupil and gonioscopy to identify new vessels in the anterior chamber angle.

Retinophotography is important for documentation of retinal modifications, and retinal angiography to identify the vascular occlusion. To diagnose the macular disorder, the optical coherence tomography is used. In cases of vitreous hemorrhage, an ocular echography is required.

The medical treatment consists in corticosteroids and anti-VEGF agents.

Laser treatment remains an option even if the duration of the disease exceeds 12 months. Sectoral panphotocoagulation is recommended in cases of neovascularization associated with vitreous hemorrhage or iris rubeosis.