

## **Long-term Outcome of Laser Photocoagulation Combined with Ranibizumab Intravitreal Injection in Macular Edema Secondary to Retinal Vein Occlusion**

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### **Abstract:**

**Objective:** To investigate the efficacy of laser photocoagulation combined with ranibizumab intravitreal injection in macular edema secondary to retinal vein occlusion in long term.

**Methods:** 35 eyes with branch retinal vein occlusion (BRVO) and 37 eyes with central retinal vein occlusion (CRVO) treated with or without laser combined with ranibizumab were investigated in this retrospective study. Laser was conducted 7-10 days after the third ranibizumab injection if fluorescein angiography showed ischemic area. In BRVO, patients may receive both macular grid and local peripheral retinal laser. In CRVO, patients just received peripheral retinal laser. We estimated the changes in visual acuity, central retinal thickness (CRT), number of injections and laser over 14 months.

**Results:** Both BCVA and CRT improved significantly in BRVO ( $P < 0.05$ ) but only CRT improved significantly in CRVO ( $P < 0.05$ ) among 14 months. The mean number of injections was 4.06 in BRVO and 8.14 in CRVO. Mean number of macular grid and peripheral laser was 0.31 and 0.86 in BRVO. Mean number of peripheral laser was 0.41 in CRVO.

**Conclusion:** Laser photocoagulation was important to patients with macular edema secondary to RVO after ranibizumab injections and may reduce the number of injections relatively in long term.