Background: Proliferative Diabetic Retinopathy (PDR) has a poor prognosis if left untreated, frequently resulting in legal blindness. Ranibizumab is approved for treating CSME. The role of Anti-Vegf therapy in PDR is currently being evaluated supplementing Pan Retinal Photocoagulation.

Rationale: The combination of intravitreal treatment (an anti-VEGF drug) with scatter photocoagulation, theoretically, could be more effective than either treatment alone. The intravitreal treatment might rapidly reduce retinal edema and lead to more rapid visual acuity improvement, whereas slower benefit accrues over time as a result of laser treatment. Combined treatment could enhance the effect of focal/grid photocoagulation because the retina would be less edematous if laser treatment was administered some time after the intravitreal treatment reduced macular edema. Intravitreal treatment theoretically could reduce the number of repeat laser treatments required to optimize the outcome of PDR treatment.

Objective: Evaluate intravitreal 0.5 mg ranibizumab combined with prompt scatter laser compared with standard PRP alone for treatment of PDR.

Methods: Retrospective exploratory comparative case analysis of patients with PDR receiving intravitreal ranibizumab and prompt scatter laser compared to PRP.

Results: Treatment initiation with three consecutive monthly injections with initial prompt scatter laser photocoagulation is recommended. Continuous careful monitoring with flexible ‘targeted’ laser photocoagulation re-treatment may help avoid vision loss due to photoreceptor damage induced by laser therapy.

Conclusion: Evidence-based guidelines will help to optimize treatment outcomes in the proposed combination therapy.