

Early Treatment Diabetic Retinopathy Study (ETDRS) - 1991



Objective

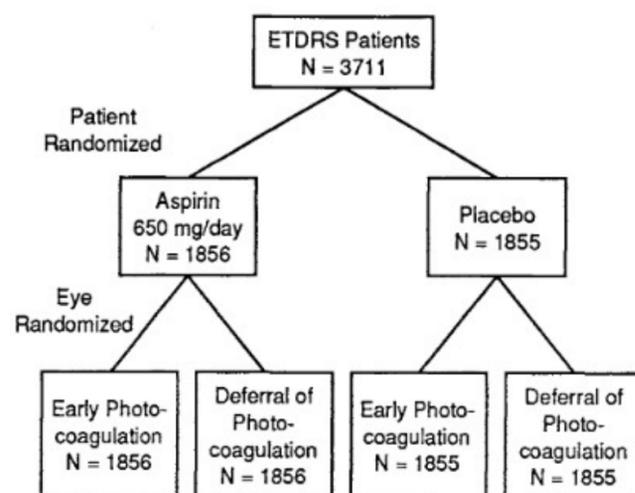
To investigate the potential of focal photocoagulation, panretinal photocoagulation (PRP), and aspirin to prevent vision loss in patients with all stages of non-proliferative diabetic retinopathy and early proliferative diabetic retinopathy.

Methods

Design: Multicenter RCT

Sample Size: 3711 patients, 7422 eyes

Treatment Groups:



Outcome Measures:

- Follow-up 6-weeks after initial treatment, then q4 months
- Visual acuity, visual fields, color vision

Results

Point 1: Early focal photocoagulation reduced the risk of vision loss from diabetic macular edema (*ETDRS Report Number 1, 9*)

Point 2: PRP decreased the risk of severe vision loss in patients with proliferative or severe non-proliferative diabetic retinopathy, but treatment was associated with diminished visual field and acuity (*ETDRS Report Number 9*)

Point 3: Aspirin did not alter the disease course of diabetic retinopathy (*ETDRS Report Number 8, 19, 20*)

- Furthermore, aspirin use was not associated with adverse ocular events, including vitreous or preretinal hemorrhage

Point 4: ETDRS established a grading system NPDR that is still used today

- The classic ["4-2-1" rule](#) for severe NPDR is based on standard images used in the EDTRS
- It also established the "EDTRS letters" system that many studies utilize for measurement of visual acuity

TLDR: PRP is beneficial for patients with PDR or severe NPDR, but the risks outweigh the benefits for patients with mild or moderate NPDR.