

The Ocular Hypertension Treatment Study (OHTS) - 2002



Objective

To determine the safety and efficacy of topical ocular hypotensive medication in delaying or preventing the onset of POAG among subjects with ocular hypertension.

Methods

Design: Multi-Center RCT

Sample Size: 1636

Treatment Groups:

- 819 to observation
- 817 to ocular hypotensive treatment; goal: IOP <24 mmHg & 20% IOP reduction

Outcome Measures:

- Development of POAG in one or both eyes:
 - Reproducible visual field abnormality, or
 - Reproducible clinically significant optic disk deterioration

Results

Point 1: Treatment of ocular hypertension effectively delayed or prevented the onset of POAG

- At 60 months, 4.4% of subjects in the treatment group and 9.5% in the observation group developed POAG ($P < 0.0001$)
- Compared to the treatment group, the observation group had a 2.5-fold greater hazard of POAG during the study

Point 2: Reduction of IOP using ocular hypotensive treatment was safe in non-glaucomatous individuals with with ocular hypertension

- Ocular hypotensive treatment reduced IOP by an average of 23% (from a mean of 25 mmHg to 19 mmHg)
- The rates of systemic and ocular adverse events were similar in the treatment and observation groups

TLDR: In subjects with ocular hypertension, ocular hypotensive treatment with a goal of reducing IOP by 20% and to <24 mmHG reduced the hazard of incident POAG by more than half.