The Ischemic Optic Neuropathy Decompression Trial (IONDT) - 1995

THE LENS

Objective

To determine the efficacy and safety of treating nonarteritic anterior ischemic optic neuropathy (NAION) with optic nerve decompression surgery (ONDS) versus careful follow-up

Methods

Design: multicenter single-masked RTC

Sample Size: 244 patients with NAION and VA ≤ 20/64

Treatment Groups:
- 125 to placebo
- 119 to ONDS

Outcome Measures:
- Visual acuity on the New York Lighthouse chart at 6 months

Results

Point 1: Patients who received surgery did not have significantly better visual acuity at 6 months than those who did not receive surgery.
- 42.7% of those who did not receive surgery showed improvement while only 32.6% of the surgery groups showed improvement with odds ratio 0.74 (95% confidence interval [CI], 0.39 to 1.38)
- 12.4% of those who did not receive surgery had worse visual acuity at six months while 23.9% of those who received surgery worsened with odds ratio 1.96 (95% CI, 0.87 to 4.41)

Point 2: Secondary outcome measures also pointed to no improvement with ONDS
- There was no benefit to visual field mean deviation for ONDS at 3, 6, or 12 months
- ONDS patients experienced numerous intraoperative and post-operative adverse events

TLDR: The utilization of optic nerve decompression for the treatment of NAION is not an effective treatment and may be harmful to patients

Optic nerve decompression surgery for nonarteritic anterior ischemic optic neuropathy (NAION) is not effective and may be harmful. The Ischemic Optic Neuropathy Decompression Trial Research Group. JAMA. 1995;273(8):625-632.