Trial Shows Anecortave Acetate Lowers IOP

During the Annual American Glaucoma Society Meeting in Washington, DC, Alcon Laboratories, Inc. (Fort Worth, TX), released the results of a second controlled proof-of-concept study evaluating the efficacy of anecortave acetate for lowering IOP.1

The investigators randomized 89 patients with open-angle glaucoma to receive anecortave acetate or the vehicle via a single anterior juxtascleral depot. At baseline, all of the patients’ IOPs (without hypotensive agents) measured between 24 and 36 mm Hg. The difference between the treatment and vehicle groups was statistically significant.

According to a news release from Alcon, approximately 55% of the patients who received 7.5- and 15-mg doses of anecortave acetate satisfied the study’s primary endpoint of maintaining an IOP of 21 mm Hg or lower at 3 months. Only two patients in the vehicle group (6.4%) achieved similar results.

“These results, together with our recently conducted phase 1 safety evaluation of larger doses and injection volumes, allows us to proceed in 2008 with studies that evaluate higher doses and injection volumes in our phase 2/3 clinical development program,” stated Scott Krueger, PhD, Alcon’s vice president of R&D, pharmaceutical development.

Experimental Test Uses Motion to Detect Early Glaucomatous Vision Loss

Investigators from Moorfields Eye Hospital in London observed the first annual World Glaucoma Day on March 6, 2008, by presenting a new technology for evaluating visual loss to Members of Parliament.¹

Unlike many perimetric tests, which are proprietary to specific devices, the Moorfields Motion Displacement Test (MDT) can be used on any personal computer. In addition, as its name suggests, the MDT uses motion versus light-based stimuli to detect defects in the visual fields of glaucoma patients.

To take the MDT, patients focus on a white spot in the center of a gray background on the computer’s screen. The spot is surrounded by 32 white lines, each of which corresponds to a location on the Humphrey 24-2 program (Carl Zeiss Meditec, Inc., Dublin, CA). Patients are asked to press the mouse every time they see one of the lines move.² Clinicians identify visual field defects by analyzing the patients’ responses.

A news release from the BBC stated that starting next month, clinics in Toronto, Rome, and Singapore will participate in a clinical trial designed to evaluate the MDT’s utility for detecting early glaucomatous visual field loss.¹ In the meantime, investigators at Moorfields Eye Hospital and City University London are developing a normative database and strategies for reducing testing time and intertest variability.²

Interim Results for Canaloplasty

Interim results from a multicenter prospective trial of combined cataract surgery and canaloplasty show that this surgical approach safely and effectively reduced IOP in patients with open-angle glaucoma.¹

The investigators evaluated 54 eyes that underwent circumferential viscodilation of Schlemm’s canal during clear corneal cataract surgery. The researchers successfully catheterized all 360° of the canal in 44 eyes (81%) and placed tensioning sutures in 40 eyes (74%). The placement of a suture is thought to facilitate the flow of aqueous fluid from the anterior chamber by placing pressure on and distending the trabecular meshwork.

By 1 month postoperatively, the treated eyes’ mean IOP decreased from 24.4 ±6.1 mm Hg to 13.6 ±3.8 mm Hg. At 6 and 12 months, the eyes maintained low IOPs (13.0 ±2.9 mm Hg and 13.7 ±4.4 mm Hg, respectively). The number

of IOP-lowering medications used by patients also decreased, dropping from 1.5 ± 0.1 at baseline to 0.2 ± 0.4 per patient at 12 months.

Although the investigators observed lower mean IOPs at 6 and 12 months in patients who received tenosing sutures, the difference was not statistically significant compared with the IOPs of patients who underwent circumferential viscoelastic only.

Based on these results, the investigators concluded that combined canolapeplasty and phacoemulsification "effectively lowers IOP with few complications and with continued control of IOP in patients followed up to 12 months."


Novel Glaucoma Drug Completes Exploratory Trial

The preliminary results of an exploratory, phase 2 clinical trial indicated that the novel glaucoma drug BTV.28949 (Biovitrum, Biovitrum, Stockholm, Sweden) reduces IOP in patients with glaucoma and ocular hypertension in a dose-dependent manner. BTV.28949 is a serotonin receptor 2A agonist that reportedly lowers IOP by stimulating aqueous outflow through the trabecular meshwork.

Other glaucoma drugs, including the prostaglandin analogs, also appear to be increasing uveoscleral outflow and bypassing the trabecular meshwork.

The patients who received the highest dose of BTV.28949 (7 mg/mL) experienced a 10% reduction in IOP from baseline after 4 weeks of treatment. Although the difference between the drug and placebo was statistically significant in 2 weeks of treatment.